Archaeological Review

# Mt Messenger Bypass

Historic Heritage Assessment

6 October 2017



Prepared for: New Plymouth District Council Private Bag 2025 New Plymouth 4342 New Zealand

# Prepared by: Geometria Limited 114A Govett Avenue Frankleigh Park

New Plymouth 4310



#### **Quality Information**

Document: Archaeological Review: Mt Messenger Bypass Historic Heritage Assessment

Ref: 2017-209

Date: 6 October 2017

Prepared by: Daniel McCurdy

## **Revision History**

Revision	Revision Date	Details	Authorized Name
Draft	02/10/2017		McCurdy
Review	06/10/2017	Internal Review	Gibb
Final Draft	06/10/2017		McCurdy
Final	14/05/2018	Draft removed	McCurdy

# Table of Contents

Executive Summary	4
1.0 Introduction	5
2.0 Methodology	5
2.1 Limitations	5
3.0 Project Description	6
4.0 Review	7
4.1 Methodology	7
4.2 Historical Background – Maori	7
4.3 Historical Background – European	9
4.4 Historical Survey	11
4.5 Field Investigation	17
4.6 Discussion and Conclusions	21
4.7 Effects of the proposal	23
5.0 Conclusion	23
Bibliography	24
Appendix 1: List of historic survey plans consulted	25
Appendix 2: Discussion on Northern Taranaki sites within rugged landscapes	
Appendix 3: Discussion on the archaeology of Te Wera	

# **Figures**

Figure 1: Proposed bypass route (red) and southern fill are (green). Existing road alignment in orange
Figure 2: 1863 Confiscation Line (blue), 500m north of project area (red)
Figure 3: Road cutting at the base of Mt Messenger, 1901 (Auckland Weekly News
Supplement, 1901, p. 4)9
Figure 4: Examples of papa kilns in Whangamomona (sources: top (Morris, 1998), bottom (Garcia, 1940))
Figure 5: Plan showing location of information noted on historic survey plans12
Figure 6: Plan showing location of information noted on historic survey plans for southern half of project area
Figure 7: Plan showing location of information noted on historic survey plans for northern half of project area14
Figure 8: Location and coverage of the plans utilised in this review (project area in red)
Figure 9: c.1900 Roll Plan in the vicinity of the project area (red)16
Figure 10: Possible pa site noted down pack track from Mount Messenger area.18
Figure 11: Photograph looking east along possibly modified ridgeline above access road from rest area
Figure 12: Photograph looking west at possible ditch on ridgeline, above access road from rest area
Figure 13: Photograph looking south, up from access track to possibly modified ridgeline
Figure 14: Approximated modern view north from modified ridgeline, generated in Google Earth. Mangapepeke Valley noted in center and SH3 on left of frame
Figure 15: Approximated modern view south from modified ridgeline, generated in Google Earth. Mimi Valley and Mount Taranaki both visible in center of frame. 
Figure 16: Plan showing locations of archaeological sites referred to in text27
Tables
Table 1: Detail of information recorded from survey plans, and sources (Figure 5 -Figure 8)11
Table 2: List of historic survey plans consulted
Table 3: Lists of relevant NZAA sites in immediate vicinity of project area
Table 4: List of significant sites in very similar terrain to project area, in North Taranaki, south of project area.   26
30utri or project alea

#### **Executive Summary**

As part of the New Zealand Transport Agency's (NZTA) Mt Messenger Bypass project, an Historic Heritage Assessment (HHA) was commissioned by NZTA and prepared by Clough and Associates (Clough & Associates, 2017) as part of the project Assessment of Effects on the Environment(AEE) report for the project.

This review finds that the overall recommendations of the HHA fulfil the requirements of the Archaeological Assessment of Effects and project brief, culminating in the recommendation that a Section 44(a) authority be sought from HNZPTA.

This review has found some deficiencies with aspects of the historical overview, heritage values and effects assessment, which should be addressed prior to an application for an authority from HNZPT and well in advance of any earthworks taking place for the project.

#### 1.0 Introduction

As part of the New Zealand Transport Agency's (NZTA) Mt Messenger Bypass project, an Historic Heritage Assessment (HHA) was commissioned by NZTA and prepared by Clough and Associates (Clough & Associates, 2017) as part of the project Assessment of Effects on the Environment(AEE) report for the project. This peer review report has been commissioned as part of the due diligence undertaken by New Plymouth District Council (NPDC) during the processing of the resource consent application for the project.

This report reviews the HHA and should be read in conjunction with that report.

### 2.0 Methodology

This peer review is limited in scope to the original HHA. As per the HHA, it does not specifically address waahi tapu or other places of cultural or spiritual significance to Maori as such assessments can only be made by tangata whenua.

The methods used to review the HHA include both a desktop study and a brief pedestrian survey of the proposed Mt Messenger Bypass route. The pedestrian survey was undertaken with NZTA on 19 September 2017, with several other expert reviewers for the NPDC and NPDC resource consenting staff.

The desktop survey involved an investigation of written records relating to the project area, including regional archaeological publications and unpublished reports, New Zealand Archaeological Association Site Record Files (NZAA SRF) downloaded via the ArchSite website (www.archsite.org.nz), local histories, aerial photography, local authority heritage lists, the Heritage New Zealand List and land plans held by Land Information New Zealand and Quickmap (Custom Software Ltd., 2017). A complete list of historic plans consulted is included in Appendix 1.

#### 2.1 Limitations

The scope of this report was limited to reviewing the Clough and Associates HHA and inspection of the accessible properties within the proposed route alignment where only select areas were examined within the limited time fame. Like the surveys undertaken for the HHA, access to the northern most property in the Mangapepeke valley or the southern fill site in the Mimi River valley was not possible.

#### 3.0 Project Description

As detailed in the HHA, the primary objective of the project is to "enhance the safety, resilience and journey time reliability of travel on SH3 and to contribute to enhanced local and regional economic growth and productivity for people and freight" (Clough & Associates, 2017, p. 3). The project is part of a larger SH3 improvement project, including the SH3 Safety and Resilience Improvements Project between Mount Messenger and the Awakino Tunnel being undertaken by Safe Roads Alliance (Geometria Ltd., 2017) and the Awakino Tunnel Bypass Project being undertaken by NZTA.

The proposed new SH3 alignment is east of the existing Mount Messenger SH3 that crosses Mount Messenger (Figure 1). It passes through the Mimi and Mangapepeke Valleys at the southern and northern ends respectively, with a tunnel below the saddle ridge of Mount Messenger (Clough & Associates, 2017, p. 18).

The majority of the route passes through Ngati Tama land and through private farm land at the southern and northern ends.



Figure 1: Proposed bypass route (red) and southern fill are (green). Existing road alignment in orange

#### 4.0 Review

This review is structured in a similar manner to the Clough and Associates HHA, addressing the sections of the original report in approximately the same order where possible.

#### 4.1 Methodology

The methodology of the HHA is conformant to standard archaeological practice. The desktop survey examined similar sources to that examined by this review and is sufficient for the purpose of the report. The visual inspection of the project area, as described in the HHA, meets the required standard for a heritage survey, excepting the northern most property and southern fill site that were not examined. The northern most property is possibly an area of concern archaeologically due to the landscape being more suitable for early occupation than the surrounding rugged terrain. This omission has been noted in the HHA and should be addressed as early as possible in the consenting process.

#### 4.2 Historical Background - Maori

The HHA provides a concise overview of Maori settlement in the area, but it is helpful to consider in more detail the occupation of the area by Maori throughout prehistory and history, which informs the resulting historic and prehistoric landscape. Specifically, although as the HHA notes, the project area primarily falls within the rohe of Ngati Tama, the southern extent of the rohe of Ngati Maniapoto (part of the Tainui confederation of tribes) is considered to be the Waipingao Stream (Maniapoto Māori Trust Board, 2017; Te Puni Kōkiri, 2017), which encompasses most of the project area. An iwi known as Ngati Rakei also existed historically just north of the project area in the Mohakatino/Mokau region, an amalgamation of elements of both Ngati Tama and Ngati Maniapoto (Wai 143, 1996, p. 279; Smith, 1910, p. 111) and noted as being the "connecting link between Ngati-Maniapoto of "The King Country" and the Te Atiawa of Taranaki" (Smith, 1910, p. 98).

It is important to consider the nature of the overlapping or at least abutting tribal boundaries, and the role it played in the occupation of the project area. Both iwi played a role in establishing the modern archaeological landscape. The rugged terrain of the project area played a crucial part in the defence of Taranaki from both prehistoric and historic invasions from the north. Ngati Tama were seen as the "gatekeepers" of Taranaki, the first line of defence against any taua (war party) invading from the north, of which there were several, with the earliest warfare between Ngati Tama and the Tainui tribes dating back to approximately 1625-1630.

The southern extent of the confiscation line created by the 1863 New Zealand Settlements Act – an important historic landmark - lies less than 500m north of the project area. The establishment of the confiscation line resulted in the taking of approximately 122,000 acres of land north of the line, 74,000 acres of which was Ngati Tama land with the resultant seizure having a devastating effect on iwi settlement patterns in the area. A discussion of this feature would help inform the archaeological potential of the area. Archaeological Review: Mt Messenger Bypass Historic Heritage Assessment

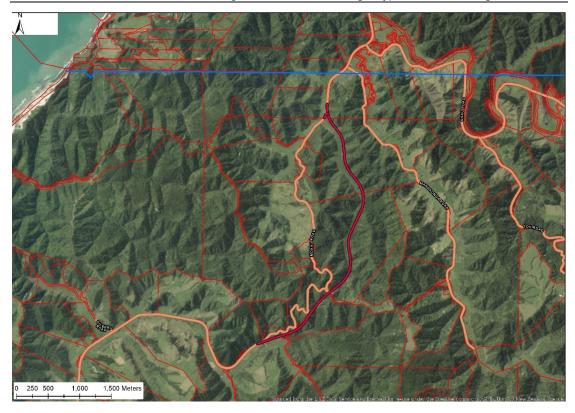


Figure 2: 1863 Confiscation Line (blue), 500m north of project area (red)

#### 4.3 Historical Background - European

The HHA provides a broad overview of the post-colonial background of the area but would benefit from a more detailed discussion of the development of the Main North Road itself. This is pertinent to the discussion with respect to what will happen to the road during the development of the bypass regarding service and lay-down areas and possible modifications outside the main corridor identified in the HHA, as well as identifying what will happen to the existing SH3 after development of the bypass and any potential impacts on the historic heritage value of this section of the road.

The establishment of the road through Mount Messenger and further north through the Awakino Gorge opened a crucial gateway to the north and was critical to the development of the Taranaki province. Coastal shipping along the North Taranaki coast was particularly dangerous and the newly formed road immediately served as a valuable piece of pre-1900 infrastructure, particularly given the deficiencies of the historic northern route along the coast, as noted in the HHA.

As noted in the HHA, work on the route dates back to as early 1883, with the initial formation technically completed in 1898. The state of the road at the turn of the century is evident in a 1901 photograph (Figure 3). During the late 19<sup>th</sup> century no local suitable source of road metal was available so the metaling of the Main North Road was achieved through the use of papa, a locally abundant soft, blue-grey mudstone. The papa was rendered into roading metal in massive papa kilns (Figure 4), and as noted in the HHA these kilns were constructed along the roadside. Although there are some remnants of burnt papa roads remaining, notably in Whangamomona, very little evidence remains or has been discovered to date of this once important industry. The papa quarries or resource locations may also be archaeological sites and may be impacted by the proposed bypass works. The possibility of encountering remnants of these papa kilns, original burnt papa roading surface or papa quarry sites within the wider project area should be considered.

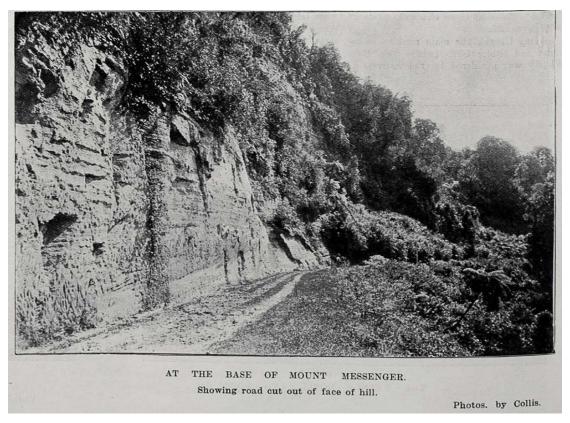
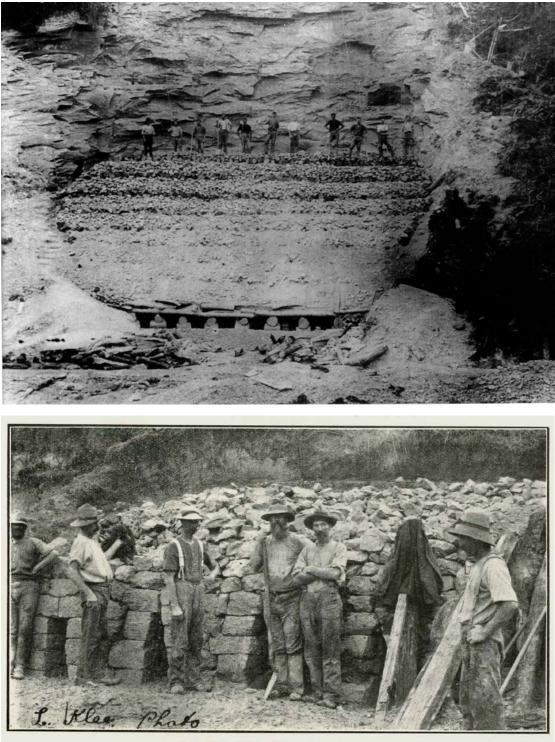


Figure 3: Road cutting at the base of Mt Messenger, 1901 (Auckland Weekly News Supplement, 1901, p. 4)

Archaeological Review: Mt Messenger Bypass Historic Heritage Assessment



BURNING PAPA FOR ROAD METAL.

Figure 4: Examples of papa kilns in Whangamomona (sources: top (Morris, 1998), bottom (Garcia, 1940))

The HHA addresses the Mount Messenger Tunnel (Clough & Associates, 2017, p. 16), relying on the earlier Opus report for a values assessment, which rates it as having a "high contextual, historic and social value, moderate cultural and aesthetic value; and potential archaeological value" (ibid.). These values however are not addressed in the summary of results. Completed in 1918, the tunnel is significant at both a regional and national level. The heritage values of the tunnel need to be addressed and any potential effects on the heritage values of the feature by the proposed works should be taken into account.

Although the HHA historical background addresses the historic formation of the road, the heritage values of the road itself, like the tunnel, are not considered within the values and significance discussion. The road has archaeological and historic heritage values and the effects on these by the proposed development need to be identified and discussed.

#### 4.4 Historical Survey

The sources examined by the HHA are comprehensive, covering all of the pertinent early survey plans (all c.1890-1900) for the immediate project area. In preparation of this review the various features of the historic survey maps were marked up in a GIS, to provide clarity regarding the relationship between noted features and the project area. This mark-up is detailed in Table 1 and Figure 5 - Figure 8, and is discussed below.

Detail	Source
Black Birch Ridge	SO 25/10, SO 1969
Black Birch Ridges	SO 25/10
Clean Grass Tableland	DP 6837
Clean Grass Tableland	DP 6837
Confiscation Line	Various
Cut track to Campbell Town	SO 899
Good Terrace	SO 25/10, SO 1969
Hilly and undulating forest land	SO 25/14A
Landslips and gutters	SO 25/9
Light bush	SO 25/9, SO 983
Light bush with a little Puriri	SO 25/9
Maori Pits	SO 864
Maukuku Pa	DP 2946, SO 25/14A
Mt Messenger	Various
Old clearing, Ponga, Rewarewa and Light Bush (Ngaoko-oko)	SO 25/14A, SO 864
Old Cultivation	SO 25/9
Old Cultivation	SO 25/9, SO 983
Old Cultivations, Scrub & light bush	SO 25/23A, SO 864
Open Swamp	SO 25/9
Pack Track	SO 982
Рара	SO 982
Perpendicular Cliff	SO 25/9, SO 983
Ponga, Rewarewa and scrub	SO 25/23A
Rough broken land	SO 25/10
Steep Spurs	SO 25/10
Swamp	SO 25/23A
Swamp	SO 25/23A
Swamp	SO 25/23A
Track	SO 25/10
Track	SO 25/10
Track	SO 983
Track	SO 983
Undergrowth thick	SO 25/10
Very broken	SO 25/10, SO 1969
Very broken gully	SO 25/10, SO 1969
Very old cultivation	SO 25/9, SO 983
Very rough and broken Papa and sandstone	SO 25/14A
Very steep	SO 25/9
Very steep slopes	SO 25/10

Table 1: Detail of information recorded from survey plans, and sources (Figure 5 - Figure 8)



Figure 5: Plan showing location of information noted on historic survey plans



Figure 6: Plan showing location of information noted on historic survey plans for southern half of project area



Figure 7: Plan showing location of information noted on historic survey plans for northern half of project area

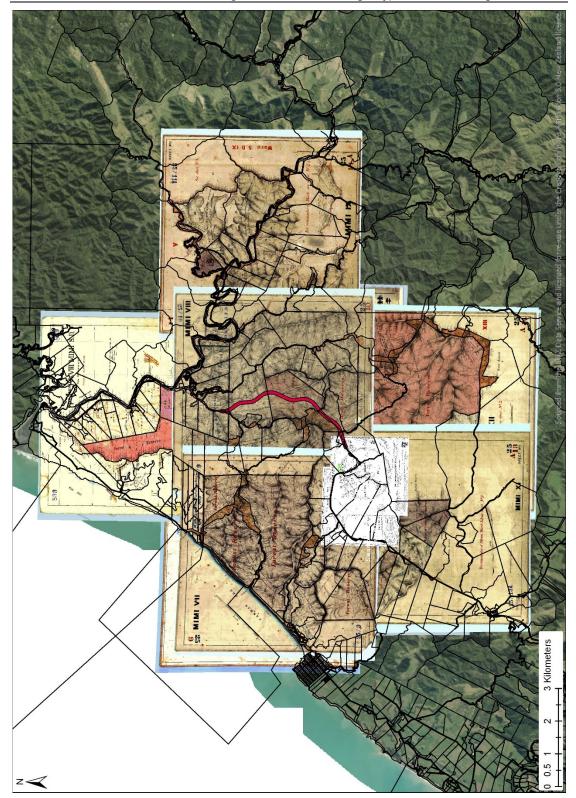


Figure 8: Location and coverage of the plans utilised in this review (project area in red)

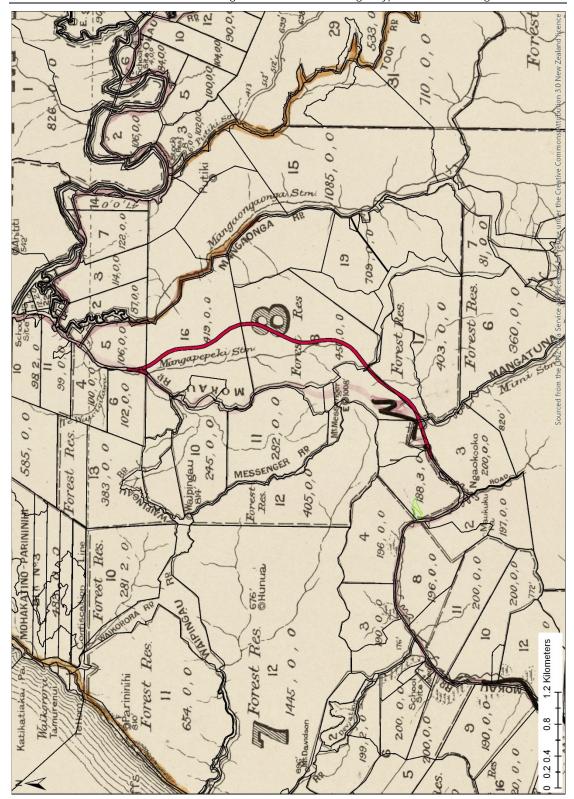


Figure 9: c.1900 Roll Plan in the vicinity of the project area (red)

The HHA notes many of the various features noted in the historic plans, all of which are within relatively close proximity to the project area. Much of the project area is described in the maps as "very broken", "steep spurs", "swamps", with some notable anthropogenic features such cultivations and clearings noted near the southern end of the project area, as well as Maukuku Pa (Q18/74) and related pits (Figure 6). To the north east of the project area (Figure 7) a number of tracks are noted, which were the tracks used by early surveyors, but likely match early Maori tracks. As noted in the HHA, a further pack track leads from the current Mount Messenger rest area, leading to a "good terrace".

In addition to the plans studied by the HHA, this review examined the c.1900 Roll Plans for the area (Figure 9) but no more information was present beyond what is included in the more detailed survey plans already examined, which is to be expected given that the Roll Plans summarise and derive from the more detailed survey plans of the period.

The relevant historic plan information is assessed by the HHA as providing relatively limited information, with the conclusion being that the chance of encountering archaeological sites would be low and those encountered would not be significant (Clough & Associates, 2017, pp. 25-26).

#### 4.5 Field Investigation

The description of the field survey undertaken for the HHA was appropriate for the project, the noted exception being the northern most property where landowner permission for access was denied at the time of survey.

Similarly, site and time restrictions during the field visit for this review meant a comprehensive pedestrian survey was not possible. However, one area of possible concern was noted along the historic pack track from the rest area at the top of Mount Messenger (Figure 10). The ridgeline above the modern access road (originally the pack track) shows some evidence of anthropogenic modification.

The top of this ridgeline exhibits signs of terracing and two possible transverse defensive ditches (Figure 11 - Figure 13) which may indicate an unrecorded archaeological site. The features are smoothed and amorphous in form and may be naturally occurring geomorphological features, although the ditches are comparable to eroded ditches commonly found on archaeological sites elsewhere in North Taranaki. This ridgeline has been grazed by cattle and the ground surface has been heavily disturbed.

Thick bush covers the southern half of the site as well as the ridgeline beyond the western ditch, but due to time constraints during the site visit these areas could not be examined in detail, so the nature of the features could not be conclusively determined. It is unclear whether this area was examined during the HHA and discounted as being archaeological but if not, it would warrant further investigation. This location is one of the highest points east of Mount Messenger, providing an exceptional viewshed down the Mangapepeke valley to the north and the Mimi valley to the south, across the Mount Taranaki. These views are approximated through Goole Earth in Figure 14 and Figure 15, but do not take into account that the area was heavily forested throughout most of history and prehistory.

Assuming that the historic pack track was originally a Maori ara (pathway) this location would have been suitable for either a small pa or defended sentry post, with exceptional natural defences and sight lines providing protection to the "good terraces" noted on SO 25/10 and SO 1969 (which were not examined during this review).

This location appears to be well enough removed from any works related to the proposed bypass route to be of no great concern, but the HHA should address any potential implications for this site, if it does turn out to be a pa upon further inspection.



Figure 10: Possible pa site noted down pack track from Mount Messenger area

Archaeological Review: Mt Messenger Bypass Historic Heritage Assessment



Figure 11: Photograph looking east along possibly modified ridgeline above access road from rest area.



Figure 12: Photograph looking west at possible ditch on ridgeline, above access road from rest area.

Archaeological Review: Mt Messenger Bypass Historic Heritage Assessment



Figure 13: Photograph looking south, up from access track to possibly modified ridgeline



Figure 14: Approximated modern view north from modified ridgeline, generated in Google Earth. Mangapepeke Valley noted in center and SH3 on left of frame.

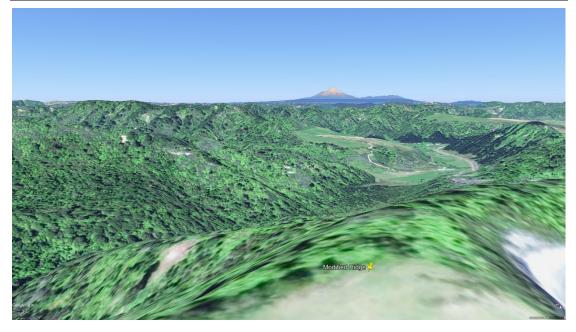


Figure 15: Approximated modern view south from modified ridgeline, generated in Google Earth. Mimi Valley and Mount Taranaki both visible in center of frame.

#### 4.6 Discussion and Conclusions

The assessment and subsequent conclusions reached by the HHA would benefit from further consideration of the wider archaeological landscape. The HHA concludes that "the steep bush country around Mount Messenger would generally have been unsuitable for Maori settlement, which was focussed along the coastal plains, but would have provided a source of raw materials" (Clough & Associates, 2017, p. 25).

The rugged nature of the interior environment, such as the subject area, was not necessarily a hindrance to Maori occupation. There are many instances<sup>1</sup> where the nature of this environment was precisely what attracted Maori to settle – such as isolation and protection from the coastal traffic and exodus from the land during times of strife.

There are a number of sites in the immediate vicinity of the project area, which despite the rugged terrain, together suggest an archaeological landscape relatively rich in occupation. Immediately south of the project area lies an extensive occupation area, that consists of a large area of cultivations<sup>2</sup> and pits, guarded by Maukuku Pa (Q18/74). The named clearing Ngaoko-oko (Figure 6) indicated on numerous maps is also indicative of likely occupation<sup>3</sup>. West of the project - between Mount Messenger and the coast – are numerous cultivations noted on historic plans in an otherwise extremely rugged landscape, some noted as "very old". Similarly North of the project area is a densely occupied archaeological landscape <sup>4</sup> and the same is true immediate South of the project area.

It seems more likely that the lack of recorded archaeological sites in the Mount Messenger area is the result of a more limited occupation of the interior in pre-historic

<sup>3</sup> Named locations such as Ngaoko-oko were often important sites, significant enough that they were known of by surveyors, or pointed out by Maori guides to surveyors at the time, in this case quite possibly by the Maori chief Ephia, who accompanied W.H.Skinner in his early surveys in this area from 1876 (Skinner

<sup>&</sup>lt;sup>1</sup> For a detailed discussion of this point, refer to Appendix 2.

<sup>&</sup>lt;sup>2</sup> On these early plans "cultivations" generally refers to Maori gardens

the Maori chief Ephia, who accompanied W.H Skinner in his early surveys in this area from 1876 (Skinner, 1946, pp. 35-41)

<sup>&</sup>lt;sup>4</sup> For a detailed discussion of this area refer to Geometria Ltd., 2017

times, a limited knowledge of the Maori history of the area and also a dearth of archaeological recording, rather than a lack of evidence. The difficult terrain, combined with late period European land tenure and a low developmental pressure has resulted in very little intensive archaeological research being conducted in the area historically.

While it was certainly unfavourable for settlement, it was clearly not a complete barrier. The rugged terrain offered land suitable for defensive purposes and numerous examples exist of northern Taranaki pa or settlements in extremely rugged and nearly inaccessible back country environments, often having been established specifically to exploit the very nature of the terrain to advantage. Such sites are often "retreat" or "refuge" pa, known through oral tradition (Ngati Tama, 2008-2014, Ngati Mutunga, 2008-2017) to have been used as retreat positions for women, children and elderly during times of war. There are a number of sites<sup>5</sup> very close to the project area in similar terrain to what the HHA refers to as "unsuitable for Maori settlement".

The HHA suggests that, as a minimum, the area would have been used as a "source of raw materials" (Clough & Associates, 2017, p. 25), but does not give great detail on the archaeological potential, or "significance" of the project area, and specifically the areas proximate to the historically mapped features. The HHA suggests that the area was primarily a source of raw materials, and if this was the case then one would expect associated archaeological sites in the vicinity of the resource locations.<sup>6</sup>

As noted in the HHA, the northern most property could not be examined, but this area holds some of the greatest potential for unrecorded archaeological sites being encountered during the project. It is recommended that this be addressed as soon as possible in the resource consenting period.

The HHA briefly touches on the heritage values of the Mount Messenger tunnel (Clough & Associates, 2017, pp. 25-26), but does not consider them in the overall heritage values assessment. In addition, no mention is made of the heritage values of the road itself or impacts that the proposed bypass may have on these. Much of the early road over Mount Messenger was constructed prior to 1900, and remains to this day a significant regional infrastructure achievement. The development of the road opened Taranaki to the north and was a crucial milestone in the economic development of the region.

The possibility of disturbing the remnants of the original burnt papa road, or the papa kilns should be addressed in the HHA. Infrastructure sites such as these have a relatively low representation in the archaeological record and thus may warrant being afforded a higher significance.

The discussion of archaeological effects would also be better informed by referencing detailed plans of the proposed works, which may not have been available at the time of writing the HHA. It is critical that the HHA assesses the specific details of the proposed works, in addition to the more general effects already covered. This should extend to discussion of any auxiliary developments, such as the development of access roads for heavy machinery<sup>7</sup>, heavy machinery storage areas, electrical and/or water infrastructure installation, fencing and vegetation removal if applicable.

<sup>&</sup>lt;sup>5</sup> As discussed in Appendix 2.

<sup>&</sup>lt;sup>6</sup> As discussed in Appendix 3.

<sup>&</sup>lt;sup>7</sup> Such as the proposed access road down from SH3 required for the creation of the proposed tunnel

#### 4.7 Effects of the proposal

The overall recommendations of the HHA are sound. As noted it is crucial that the unsurveyed areas be examined in the Mangapepeke Valley and the southern fill site prior to the works program commencing. The list of likely archaeological features should be expanded to include remnants of the original burnt papa road, papa kilns and early settlements associated with the road's construction.

The recommendation that archaeological monitoring take place under a Section 44(a) authority during initial earthworks is pertinent, as this will enable works that might result in the discovery of any previously unrecorded archaeological sites to proceed under archaeological supervision. It is recommended that an overall Archaeological Works Plan be developed, as part of the authority process, to ensure clarity regarding how earthworks should proceed to best mitigate damage to any previously unrecorded archaeological sites.

#### 5.0 Conclusion

The overall recommendations of the HHA fulfil the requirements of the Archaeological Assessment of Effects and project brief, culminating in the recommendation that a Section 44(a) authority be sought from HNZPTA. This review has found some minor deficiencies with aspects of the historical overview, heritage values and effects assessment. These issues, which may need to be addressed, are:

- 1. The northern-most property and southern fill site needs to be fully assessed.
- 2. The heritage values of the original burnt-papa road, Mount Messenger tunnel, papa kilns and papa quarries should be assessed and mitigation discussed.
- 3. A wider landscape view should be considered when assessing the likelihood of encountering unrecorded archaeological sites in the project area. The HHA determines the landscape to be unsuitable for occupation, but other similar landscapes in North Taranaki are well populated with archaeological sites.
- 4. A potential site above the pack track from the Mount Messenger rest area should be investigated further.

It is recommended that these issues be addressed both prior to an application for an authority from HNZPT and also under authority from HNZPT if required, and well in advance of any earthworks taking place for the project.

#### Bibliography

Auckland Weekly News Supplement. (1901, April 19). Auckland Weekly News Supplement.

Byrnes, G. (1995). Wai 143: Ngati Tama Ancillary Claims. Waitangi Tribunal, Wellington.

- Clough & Associates. (2017). *Mt Messenger Bypass: Historic Heritage Assessment.* Unpublished report to NZTA.
- Custom Software Ltd. (2017). QuickMap. Computer Software.
- Garcia, J. (1940). History of Whangamomona County.
- Geometria Ltd. (2017). Archaeological Assessment of Effects: State Highway 3 Awakino Gorge to Mt Messenger Corridor. Unpublished report to Safe Roads Alliance.
- Hooker, R. (1971). Field Research in the Inland Taranaki Region. Archaeology in New Zealand, Vol. 14, No. 4, 142-156.
- Maniapoto Māori Trust Board. (2017, September 25). Retrieved from http://www.maniapoto.iwi.nz/about-us/rohe-map/
- Morris, D. (1998). Marco School and District Centennial.
- Ngati Mutunga. (2008-2017). Personal Communications during Waahi Tapu Review Project, New Plymouth District Council.
- Ngati Tama. (2008-2014). Personal Communications during Waahi Tapu Review Project, New Plymouth District Council.
- Potts, K. (2015). SH3 Awakino Gorge to Mount Messenger Corridor. Preliminary Archaeoogical Appraisal. Unpublished report to New Zealand Transport Agency.
- Skinner, W. (1946). Reminiscences of a Taranaki Surveyor, New Plymouth.
- Smith, S. P. (1910). History and Traditions of the Maoris of the West Coast North Island of New.
- Stokes, E. (1988). Mokau: Maori Cultural and Historical Perspectives, University of Waikato.
- Te Ara. (2017, September). Story: Ngāti Maniapoto. Retrieved from https://teara.govt.nz/en/ngati-maniapoto/page-1
- Te Puni Kōkiri. (2017, October 3). *Tainui Maniapoto*. Retrieved from Te Kāhui Māngai: Directory of Iwi and Maori Organisations: http://www.tkm.govt.nz/iwi/ngatimaniapoto/
- Wai 143. (1996). The Taranaki report : kaupapa tuatahi (Wai 143) New Zealand. Waitangi Tribunal.

#### Appendix 1: List of historic survey plans consulted

The following plans (Table 2) were consulted during the creation of this report. The plans that provided information relevant to the report are listed as "Used"

Examined
NPC DP 5188
NPC SO 10099
NPC SO 10123
NPC SO 1038
NPC SO 1327
NPC SO 25 1
NPC SO 338
NPC SO 339
NPC SO 52 12
NPC SO 52 4
NPC SO 6686
NPC SO 7509
NPC SO 867
NPC SO 8987
NPC SO 8998
NPC SO 9531
NPC SO 9532
NPC SO 9678
NPC SO 9753
NPC SO 9860
NPC SO 9974
NP DP 3558
NP DP 4916
NP DP 5353
NP DP 5816
NP SO 10371
NP SO 10529
NP SO 10529 NP SO 10531
NP SO 10532
NP SO 1106
NP SO 11535
NP SO 11535 NP SO 11536
NP SO 12007
NP SO 12007
NP SO 12071 NP SO 12218
NP SO 13040
NP SO 13040
NP SO 13158
NP SO 13910
NP SO 2773
NP SO 2773 NP SO 6871
NP SO 7978
NP SO 8480
NP SO 8986 NP SO 9107
NP SO 9512
NP SO 9532

Used	
NP DP 2946	
NP DP 6837	
NPC SO 1037	
NPC SO 1969	
NPC SO 25 10	
NPC SO 25 11A	
NPC SO 25 13A	
NPC SO 25 14A	
NPC SO 25 9	
NPC SO 864	
NPC SO 899	
NPC SO 982	
NPC SO 983	

Table 2: List of historic survey plans consulted

# Appendix 2: Discussion on Northern Taranaki sites within rugged landscapes

There are a number of sites proximate to the project area in similar terrain to what the HHA suggests as "unsuitable for Maori settlement" (Table 3). Within the wider Northern Taranaki landscape there are many more examples of occupation sites within very rugged terrain, some very similar to the project area. Table 4 and Figure 16 detail some relevant examples within the Ngati Mutunga rohe (of which the review author has personal experience).

Although these sites are obviously cherry-picked, they demonstrate that the terrain of the project area does not preclude unrecorded sites being present. The pa/settlement complex of Puke Whakamaru (Q19/79, Q19/156) is probably the most impressive example of a nearly identical landscape to the project area being utilised both for a settlement and a defensive refuge pa. The terrain makes the pa nearly inaccessible without safety ropes, but the larger settlement area occupies a gently sloping clearing, very similar to those noted in plans near the project area.

NZAA Site	Detail
Q18/65	A large area (1km <sup>2</sup> ) containing cultivations, in steep, thickly bushed mountain range.
Q18/74	Maukuku Pa, a single platform pa with terrace and pits. Cultivations in nearby slopes.
Q18/17	Te Hawera Pa. A terraced pa site on a steep ridgeline overlooking the Waipingao valley, in thick bush
Q18/5	Tahawera (or Pingao) Pa. Terraced pa on steep ridgeline above coast. Site realistically extends along several nearby ridgelines, with several pits, fire features and clearings encountered. Very rugged, steep terrain.

NZAA Site	Detail
Q19/79	The most similar in environment to the project area, Puke Whakamaru consists of a large settlement area (700m x 350m) in a clearing in otherwise rugged bush.
Q19/156	Further back along the ridgeline from the Q19/79, the associated pa site Q19/156 is accessible only by way of extremely steep, narrow ridges (requiring safety ropes in places), but functioned as a hidden refuge pa, for retreat in times of war. There is reportedly another pa site even deeper into the bush along the same ridgeline but this was not found during the visit to Q19/156.
Q19/36	Pukekahu is a ridge top pa on a steep, isolated ridgeline in otherwise thick bush.
Q18/39	Turangarua is an extensive pa site with defensive earthworks on a huge, sprawling, series of steep ridgelines, similar to the project area, in thick bush.
Q19/38	Ruapukeaka Pa. A terraced pa site, on a steep, forested ridgeline, with small central platform.
Q19/80	Tutu Manuka Pa. An extensive hilltop pa defended by very steep bluffs, accessed via steep ridgelines.
NPDC DP 2586	A pa extending some 350m along a thickly forested, steep ridge, spatially associated with settlement site NPDC DP 2247.
NPDC DP 2247	An extensive settlement, consisting of several terraces with pits and house sites. Would have likely originally been a clearing in thick forest.

Table 3: Lists of relevant NZAA sites in immediate vicinity of project area

Table 4: List of significant sites<sup>8</sup> in very similar terrain to project area, in North Taranaki, south of project area.

<sup>&</sup>lt;sup>8</sup> NPDC DP sites are archaeological or waahi tapu sites have been recorded during the New Plymouth District Council District Plan Upgrade Project, but have not yet included in the NZAA ArchSite list

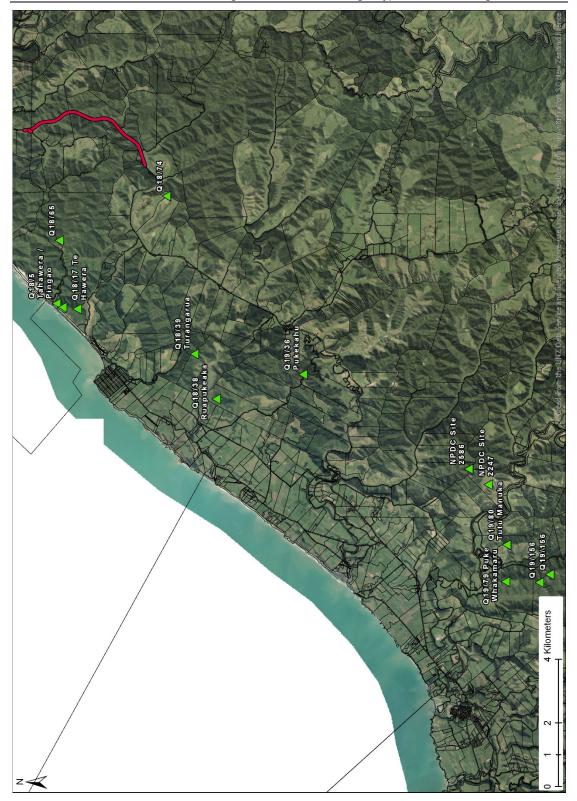


Figure 16: Plan showing locations of archaeological sites referred to in text

#### Appendix 3: Discussion on the archaeology of Te Wera

The HHA suggest that the project area would have "provided a source of raw materials" (Clough & Associates, 2017, p. 25) and if this is indeed the case, this likely increases the chance of encountering archaeological sites related to resource gathering activities.

If the area was a resource gathering area, a useful comparison is the inland landscape of Te Wera forest, which was significant as a resource location in prehistory, and was extensively surveyed in 1969 by Ray Hooker. The region is within the rohe of Ngati Maru.

The Te Wera landscape is similar to that of the project area, with steep ridgelines, lush sometimes swampy valley floors, a difficult geology dominated by a form of papa mudstone and in the archaic period was almost entirely valued for its resource value, being a source of good adze stone. In spite of these limiting factors, an abundance of sites was found during intensive survey of the area, primarily short-term settlements (seasonal camps in the narrow valleys between steep ridgelines), resource locations and small pa on steep ridgelines (Hooker, 1971). Although the remoteness of Te Wera distinguishes it from the project area, it is indicative that even largely undesirable landscapes, which functioned primary as a resource location still exhibit signs of occupation that can be studied through archaeological methods.