

UNDER the Resource Management Act 1991 ("**RMA**")

AND

IN THE MATTER of a notice of requirement ("**NoR**") for a designation by KiwiRail Holdings Limited ("**KiwiRail**") for the Palmerston North Regional Freight Hub ("**Freight Hub**") under section 168 of the RMA

**STATEMENT OF EVIDENCE OF DANIEL PARKER
ON BEHALF OF KIWIRAIL HOLDINGS LIMITED**

ARCHAEOLOGY

1. SUMMARY

- 1.1 The Freight Hub is situated in a landscape that has been occupied for many centuries, although for most of this time the proposed site for the Freight Hub ("**Site**") was predominantly covered in a dense and relatively impenetrable forest. There are no Registered Historic Places, recorded archaeological sites or listed heritage sites in the relevant district plans within the proposed boundary of the proposed designation ("**Designation Extent**"). There are no verified archaeological sites of Māori origin within the Designation Extent and the pre-1864 archaeological potential is likely to be greatest alongside or in close proximity to the various streams and waterways. Provided any discoveries are properly documented, I consider that the adverse effects on these areas in terms of archaeological matters will be no more than minor.
- 1.2 Following the Crown purchase of the Ahuaturanga Block and subsequent on-sale of the land to the Emigrant and Colonists' Aid Corporation and various individual settlers, occupational intensity within the Designation Extent increased in the years after 1864. However, the development of Bunnythorpe did not proceed at a pace or scale that was originally envisaged and substantial proportion of the planned settlement remained underdeveloped at the turn of the century.
- 1.3 There are only three verified archaeological sites located within the Designation Extent. There are seven houses, house sites and buildings that

have moderate site potential and 74 historic sections that have at least minor site potential. These sites will need to be investigated further prior to lodging any application for an archaeological authority from Heritage New Zealand Pouhere Taonga ("**HNZPT**").

- 1.4 In my opinion, adverse effects on archaeological values within the Designation Extent will range from negligible to low. Of the nine houses, house sites and buildings identified within the Designation Extent, only one is expected to be significantly adversely affected, five moderately affected and three affected to a no more than minor level. One historic section is expected to be significantly affected due to the presence of sensitive sites. Additional sites are expected to be discovered during the works to construct the Freight Hub but the number of additional sites is expected to be relatively small.
- 1.5 Relative to the total land area of the Designated Extent, the Freight Hub's effects on archaeological sites and built heritage are limited and readily manageable under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 ("**HNZPTA**"). An application to HNZPT for an archaeological authority, or authorities, to damage, modify or destroy archaeological sites will be required as a part of the management process.

2. INTRODUCTION

- 2.1 My full name is Daniel John Parker. I am an Archaeologist and director of inSite Archaeology Limited. I hold the qualifications of Bachelor of Arts (Hons) and Master of Arts degrees in Anthropology, specialising in the sub-discipline of Archaeology. I graduated from the University of Auckland in 2012. I am also a member of the New Zealand Archaeological Association and the International Association of Landscape Archaeology.

Experience

- 2.2 Since graduating from the University of Auckland in 2012 I worked at inSite Archaeology Limited, predominantly in the Horowhenua and Manawatu regions. I have also worked as a tutor and archaeological surveyor for the University of Auckland between 2003 and 2008. My clients include central government agencies, local and regional councils, iwi authorities and private developers amongst others. Some recent or current projects where I have provided archaeological advice, include:

- (a) Otaki to North of Levin Expressway, for Waka Kotahi NZ Transport Agency;

- (b) Palmerston North City Council wastewater treatment best possible option analysis, for Palmerston North City Council ("**PNCC**");
- (c) Lower Manawatu Rural (stopbank) Upgrade, for Horizons Regional Council;
- (d) Foxton Beach and Waitarere Beach master planning for future growth, for Horowhenua District Council; and
- (e) Mangahewa C wellsite extension, for Todd Energy.

Involvement in the Freight Hub

2.3 I was engaged by Stantec in 2019, on behalf of KiwiRail, to provide information, analysis and advice on matters of archaeology and cultural heritage. This included providing technical input on the process for selecting the location and indicative design of the Freight Hub, and providing a comparative assessment of the archaeological potential site options for the purpose of informing the multi criteria analysis ("**MCA**") workshops for the Freight Hub. I was also directly engaged by KiwiRail to attend and provide information in support of their iwi engagement.

2.4 I prepared the Preliminary Analysis of the Archaeological Potential for the Freight Hub that was included with the Assessment of Environmental Effects ("**AEE**") for the Freight Hub as Report H ("**Archaeological Assessment**").

Code of conduct

2.5 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

3. SCOPE OF EVIDENCE

3.1 This statement of evidence will:

- (a) provide an overview of the methodology and key conclusions of the Archaeological Assessment;

- (b) respond to the submissions received that relate to archaeology matters; and
- (c) address relevant matters raised in the Council's Section 42A Report ("**Section 42A Report**").

4. RESEARCH METHODOLOGY

4.1 My Archaeological Assessment is a desktop-based assessment of archaeological sites within the Designation Extent or, in the case of historic buildings, within 500 m of the Designation Extent.

Data Definition

4.2 The Archaeological Assessment identified four categories of archaeological or heritage site classes:

- (a) Registered Historic Places;
- (b) recorded archaeological sites;
- (c) known archaeological sites; and
- (d) unknown archaeological sites.

Registered Historic Places

4.3 Registered Historic Places are predominantly historic buildings, structures or monuments and archaeological sites that are "significant and valued historical and cultural heritage places" recognised and listed by HNZPT.

Recorded and known archaeological sites

4.4 The New Zealand Archaeological Association ("**Association**") maintains an online database of archaeological sites that includes basic site details and location information. The Association database contains a substantial number of sites, but it is not a complete record and there are many sites that are not included in the database. For this reason, sites listed in the Association database are referred to as 'recorded' sites, while sites not included in the database, but identified through other sources – such as plans, court records and photographs – are referred to as 'known' sites.

Unknown archaeological sites

- 4.5 Where there is no direct evidence for archaeological sites, but their presence is strongly inferred (on the basis of patterns in the distribution of known and recorded sites, or other sources of information), reference may be made to 'potential' or 'unknown' sites. My assessment has considered unknown archaeological sites broadly due to the inherently limited amount of information available about these types of sites.
- 4.6 I have interpreted the requirements in section 6(a)(i) of the definition of "archaeological site" in the HNZPTA that a site must be "associated with human activity" as including any place with a historic Māori name-association and unnamed features of the natural environment that are regarded as having been focal points for past human activity. In applying this broad interpretation, I have included natural features such as the named streams and their tributaries within the Designation Extent in my analysis. Although these features of the natural landscape may not meet the strictest HNZPTA definition of what is an archaeological site, there are a wide range of sources indicating that these places have, or are likely to have, an archaeological component that is unrecognised due to issues of surface visibility or a limited history of landscape study.
- 4.7 To compensate for an incomplete archival record, the Archaeological Assessment also evaluates all historic sections within the Designation Extent as potential archaeological sites. An historic section is a paper record (now digital) of property boundaries (ie a cadastral parcel) and is not an archaeological site under the strict definition of the HNZPTA. However, in the absence of detailed site-specific information, historic parcels can be a useful proxy for assessing an unknown archaeological potential as archaeological sites can be located within their boundaries. For example, a late nineteenth century historic section might contain a number of unknown archaeological sites (such as a house, barns and sheds, gardens and orchards, wells and rubbish pits, etc) within its boundary that might fit the statutory definition of an archaeological site, once identified.

Data Collection

- 4.8 My research for the Archaeological Assessment relied on the following sources of information:
- (a) Manawatu District and PNCC spatial data;
 - (b) HNZPT's New Zealand Heritage List;

- (c) historic survey plans;
- (d) historic newspapers, published books and pamphlets;
- (e) historic electoral rolls; and
- (f) some engagement with iwi.

4.9 From my research, there was an absence of documentation relating to Māori occupation and an abundance of material relating to European occupation. This means there is no information available that would enable the potential effects of Māori archaeological sites to be discussed with greater specificity. This has informed the conservative approach to the desktop analysis undertaken. As I have outlined above, I have interpreted the definition of "archaeological site" under the HNZPTA broadly taking this into account.

Values and effects scoping

4.10 Throughout this evidence and the Archaeological Assessment, I refer to:

- (a) archaeological potential; and
- (b) site potential.

4.11 "Archaeological potential" refers to the likelihood that an area within the Designation Extent or another defined area contains archaeological sites in accordance with the HNZPTA, and is considered as having either high, medium or low value.

4.12 "Site potential" refers to the value of a potential archaeological site, and whether it will meet the legal definition under the HNZPTA. It is measured based on the quality of a site's spatial information and the possibility that archaeological values will be affected, based on a 5-point scale from negligible, minor, low, and moderate site potential, or verified. A verified archaeological site is a location, building or object that fulfils the statutory requirements to be considered an archaeological site under the HNZPTA, and where the location and extent of the site are known to a high precision. A site with negligible site potential is highly unlikely to be considered an archaeological site under the HNZPTA and therefore adverse effects on archaeological values are expected to be low.

- 4.13 To determine the site potential in accordance with the 5-point scale, scores were assessed for archaeological values based on the historic research that was undertaken. Six archaeological values were considered:¹
- (a) rarity or uniqueness;
 - (b) information potential;
 - (c) contextual value;
 - (d) amenity value;
 - (e) cultural associations; and
 - (f) historic value.
- 4.14 For each site, archaeological values were assessed as being either nil, low, medium or high value on a 0 to 3 scale. The qualitative values were converted to a numeric scale so that the values can be aggregated to a single overall value. This is referred to as the total heritage value, with the maximum possible total score for a site being 18, and 0 being the lowest.
- 4.15 Scores that approach 18 in total heritage value indicate a site of national or international significance, while scores below 5 indicate low value sites of limited local interest. Mid-level sites that score between 5 and 10 have, or may have, local or regional significance, such as significant families that were the founding settlers of Bunnythorpe. Lower values were assigned to sites associated with families that were later settlers at Bunnythorpe and the lowest values were assigned to sites with negligible evidence for historic occupation.
- 4.16 Effects were scored on the basis of a combination of each site's heritage value. High value sites that would be physically affected by the construction of the Freight Hub were assessed as being the most affected. Sites with moderate or low site potential and moderate heritage values were assigned a moderate or low effect. Sites of negligible site potential and negligible heritage value were assigned a negligible effect.
- 4.17 Being a desktop analysis, not all values could be recognised and assessed as part of the Archaeological Assessment. For example, it was not possible to assess condition across all sites and so this has not been included. The cultural values of sites (separate to the assessment of cultural associations)

¹ Further context on assessing values is outlined at Appendix 2 of the Archaeological Assessment.

are also more appropriately addressed by iwi and were not included in the Archaeological Assessment.

5. SITE BACKGROUND

5.1 While the Manawatu region has an extensive and varied history of occupation by both Māori and Europeans – relative to each group's arrival and settlement in New Zealand – the Freight Hub is proposed to be located in an area of low archaeological potential. The underlying reasons for this low potential are described in the Natural context and Historic context sections of the Archaeological Assessment, as summarised below.

Natural context

5.2 The Freight Hub is proposed to be located mid-way between the Manawatu and Oroua rivers on a mix of Late Pleistocene river deposits of gravel, loess, sand and silts, and Holocene river deposits of similar material with localised areas of peat. Low terraces are incised by a number of shallow gullies, with a generally east-west aspect, formed by small streams and creeks discharging into the Mangaone Stream on the western side of the Site.

5.3 Prior to the beginning of European settlement in the Upper Manawatu in the later decades of the nineteenth century, the surrounding landscape of the Site was covered in a dense podocarp forest. However, within a few decades of intensive European settlement along the upper Manawatu and Oroua rivers, starting in the 1870s, both the forest and semi-swamp forests were almost entirely cleared of their native vegetation as the land was converted to pastoral use.

5.4 The local fauna included a range of fresh-water vertebrates and invertebrates, as well as a wide array of bird life that had included species of moa and the hokioi (Haast Eagle, *Hieraaetus moorei*), although both of the latter were extinct at the time of European arrival. With the clearance of the forests, the landscape, bird and fish life greatly changed.

Historical context

5.5 Radiocarbon (C14) determinations from coastal sites in the Manawatu indicate that Māori have occupied this part of the New Zealand coast for more than 700 years. Until the late-nineteenth century, the major settlements and occupation sites of the various iwi were predominantly located along the coastal dune belt and adjacent to the major rivers, streams, swamps, lagoons and inland lakes.

The densely forested land beyond these places was not unoccupied, but Māori and European historical accounts indicate that it was not intensively settled until after the completion of the Wellington-Manawatu Railway in 1886. Prior to this, the forest was used by Māori primarily for resource gathering, including bird snaring, collecting forest fruits and obtaining timber.

- 5.6 Archaeological evidence, court records and Māori oral histories indicate multiple migrations into the region – either by conquest or invitation – in the period before colonisation by the British Crown. Various authors have identified a number of iwi as being the first inhabitants of the Manawatu, including Waitaha, Ngāti Mamoe, Ngāi Tara and Ngāti Hotu. Although all authors agree that they were eventually conquered or displaced by people migrating from the east coast with the chief Whatonga, who had first arrived in the Manawatu aboard the Kurahaupō waka. The descendants of those people who arrived with Whatonga and settled the Manawatu primarily identify with the Ngāti Apa, Rangitane and Muaūpoko iwi.
- 5.7 A renewed period of Māori migration into the Manawatu occurred between 1820 and 1840 as iwi from the Waikato and north Taranaki were forced south by the pressure of northern iwi who had obtained European firearms and were using these to expand their territory or settle old grievances. Ngāti Toa, led by Te Rauparaha, migrated from Kawhia in the early 1820s and established a base at Kāpiti, eventually settling over much of the southern territory that was previously occupied by the Muaūpoko and their related allies. To consolidate his hold on these territories, Te Rauparaha invited Ngāti Raukawa to establish settlements in the land. However, it was only upon receiving an invitation from his sister, Waitohi – who shared Ngāti Raukawa descent through her mother, Parekohatu – that the Ngāti Raukawa agreed to come. Ngāti Kauwhata were among the first of the Raukawa identifying or allied peoples to make the journey south, temporarily establishing themselves between Otaki and Waikanae before the majority of Ngāti Kauwhata migrated north and settled along the banks of the Oroua River.
- 5.8 Prior to the late 1880s, the main centres of colonial settlement in the Manawatu were concentrated along the banks of the lower Manawatu River at Paiaka, and after the great earthquake of 1855, at Awahou (Foxton). Their early importance was due to their position on the Manawatu River at locations that were accessible to sea-going trading vessels. Although the government had made substantial tracts of new land available to the public, the initial development of the inland settlements such as Palmerston North, Feilding, Awahuri and Bunnythorpe was hampered by a lack of infrastructure (roads and

drainage, in particular) and in some instances a high proportion of absentee ownership.

Bunnythorpe

- 5.9 Bunnythorpe was originally envisaged as a large town at what was planned to be the junction of the West and East Coast railways. Off the back of this expectation, large numbers of sections were purchased at the Government auctions by land speculators who expected a healthy return when the railways connection was completed. With a high number of absentee owners doing only the bare minimum to develop and retain their land, the growth of Bunnythorpe was outstripped by other centres such as Ashhurst and Palmerston North.
- 5.10 The decision to shift the West and East Coast railways junction to Palmerston North further stalled the development of Bunnythorpe, though the town continued to grow throughout the 1880s and into the 1890s, and by 1899 the Palmerston electoral roll listed 270 eligible voters residing at Bunnythorpe.
- 5.11 By the turn of the century, most of the once verdant forest had been cleared and farming was the main industry of the land that was serviced and supported by a small urban community. It seems likely that had the West and East Coast railways junction not been shifted to Palmerston North, Bunnythorpe would have grown to become the principal settlement of the district.

6. THE ARCHAEOLOGICAL LANDSCAPE

- 6.1 In the Archaeological Assessment, the assessment of the archaeological landscape is separated into two periods:
- (a) pre-1864; and
 - (b) 1864 onwards.
- 6.2 This recognises the fundamental differences in the local environment and land tenure that define the historical distinct patterns of Māori and European occupation.

Pre-1864 – The Māori Landscape

- 6.3 No registered historic places or any Association recorded archaeological sites associated with pre-1864 Māori occupation will be affected by the Freight Hub. Any unknown sites that may be encountered are expected to be smaller sites

associated with forest-based activities targeting the food, fibre and material resources described in the Natural Context section of the Archaeological Assessment. The densely wooded nature of the landscape precludes the existence of larger sites outside of natural or human-made clearings and none are known to have been present in the immediate vicinity of the Freight Hub.

- 6.4 The most likely locations for unknown sites to be encountered is alongside or in general proximity to the Makahika and Mangaone streams and other unnamed tributaries that are likely to have been focal points of Māori occupation within the forest, particularly as sources for eel and other fresh-water fisheries as well as bird hunting and rat snaring sites. Small cultivations and seasonally occupied settlements are also a possibility alongside these waterways in places where regular flood deposits of good silts and sediments may have accumulated. The archaeological potential along the length of these waterways is high, but the site potential at any one location along a given waterway is expected to be minor.
- 6.5 The overall archaeological potential of the pre-1864 Māori landscape is, in my opinion, relatively low, with archaeological values of any sites that might be encountered within the Designation Extent expected to be low.

1864–1900 – The Colonial Landscape

- 6.6 Prior to 1883, thirteen families were identified as the only occupants at Mugby Junction (the present-day portion of Bunnythorpe that is to the north of the North Island Main Trunk line ("**NIMT**") on the Manchester Block). No properties, surviving buildings and structures, or archaeological sites associated with these founding pioneers will be affected by the Freight Hub. Important early civic building sites such as the first Bunnythorpe school, the Royal Hotel, Tremewan's store, Anglican and Methodist churches were also located north of the NIMT and will not be affected by the Freight Hub.
- 6.7 Seven pioneer families were identified as founding settlers at Bunnythorpe that resided south of the NIMT. Crown Grant plans and voter registration rolls indicate that at least two, with a probable third, of these seven families owned land inside the Designation Extent.
- 6.8 By 1900, there were 61 named individuals associated with the 154 individual historic sections located within the Designation Extent. Of the 61 named purchasers, only 25 are known to have resided at Bunnythorpe. There are 74 historic sections within the Designation Extent that are assessed as having at least minor site potential, but a more accurate appraisal of their potential

requires further research and fieldwork which is more appropriate at later stages of development.

- 6.9 All Crown Grant purchasers were required to improve their land in order to be granted a title, but for absentee purchasers the improvements were generally limited to clear felling the forest, stump clearance, grass seeding and fencing. The archaeological potential is expected to be negligible for these sections within the Designation Extent.
- 6.10 The Freight Hub is entirely located within the historic town and suburban limits of Bunnythorpe, with 128 town sections and 26 suburban sections of historic Bunnythorpe within the Designation Extent. Of these, 74 historic sections are assessed as having minor site potential. This amounts to approximately 91 hectares of the Designation Extent. A further 57 hectares of historic sections are assessed as having negligible site potential.
- 6.11 Within the Designation Extent, three sites have been verified as archaeological sites under the definition of the HNZTPA, being:
- (a) the Rogers' house, at 489 Railway Road;
 - (b) the Clevely house site, at 121 Clevely Line; and
 - (c) the Bunnythorpe Suburban Section 1510, at 121 Clevely Line.²
- 6.12 This is because they have a confirmed location and extent and are confirmed to be pre-1900.
- 6.13 Another seven sites have moderate site potential (which have a confirmed location and extent, and have a high probability of being pre-1900) and further research through the archaeological authority process is expected to result in the elimination of at least some of these from the list of affected archaeological sites.³ Five roads that were formed during the nineteenth century will also be affected by the Freight Hub, these being:
- (a) Clevely Line;
 - (b) Railway Road;
 - (c) Richardsons Line;

² In addition to (b), the Clevely house site, other archaeological sites separate to the house site are known to be present within this section.

³ These 9 houses, house sites and buildings identified within the Designation Extent are listed at table 6 of the Archaeological Assessment.

- (d) Roberts Line; and
- (e) Te Ngaio Road.

- 6.14 The archaeological values for these roads are generally low, but the Clevely, Richardsons and Roberts lines have moderate values due to their association with three of the pioneer families of the district.
- 6.15 The origin of the NIMT at Bunnythorpe was established in the nineteenth century as an extension of the Wellington and Manawatu Railway, becoming the Wellington to New Plymouth Railway. Little if anything is expected to remain of the original track and structures, but there is the potential for archaeological sites associated with railway construction to be encountered alongside the NIMT. The railway is given moderate scores for information potential, contextual value, cultural associations and historic values reflecting the fact that railway sites are likely to be of interest beyond the immediate community and also have a significance to the transport history and economic development of New Zealand.
- 6.16 The Glaxo building is not an archaeological site under the legal definition of the HNZPTA, but its significant heritage values are recognised through its listing as a Registered Historic Place and as a category 2 building of heritage value in the PNCC District Plan. In recognition of this, the Glaxo Building has been treated as an archaeological site, although this building is located outside of the Designation Extent.

7. ASSESSMENT OF EFFECTS

- 7.1 As with the archaeological landscape, the assessment of effects is divided into pre- and post-1864 periods, in this case reflecting the different specificity with which effects to Māori and European archaeological sites can be discussed.

Effects to the pre-1864 Māori Landscape

- 7.2 Adverse effects on archaeological sites associated with the pre-1864 Māori landscape are expected to range from low to negligible. There is potential for archaeological sites to be encountered where the Designation Extent approaches the Mangaone Stream between Roberts Line and Te Ngaio Road. Archaeological sites encountered in proximity to the Mangaone Stream will be located on the periphery of the Freight Hub and there is likely to be scope to minimise or avoid affecting these sites (if any are encountered). As a result, adverse effects are expected to be no more than minor.

- 7.3 A higher level of effects is expected for any sites that are discovered inside the Designation Extent, which is most likely to occur alongside the unnamed streams and waterways. Sites associated with inland hunting and fishing camps or forest activity areas, though numerous in the past, are archaeologically rare. The Freight Hub would likely result in the total destruction of any such sites, but with appropriate documentation and recording, the resultant effect, in my view, will be no more than minor.

Effects to the 1864–1900 Colonial Landscape

- 7.4 I have identified 197 sites with archaeological potential inside or within 500 m of the Designation Extent. These are listed in detail in Appendix 1 of the Archaeological Assessment and in summary in Appendix 1 to this evidence.
- 7.5 A house (site #14) and house site (site #13) that may have been built / occupied by the early Bunnythorpe settler Robert Volkerk are assessed as being significantly and moderately affected, respectively. It is unlikely that both sites were built / occupied by Robert Volkerk, meaning at least one of these sites will be ruled out as containing archaeological sites and therefore will not experience any associated effects.
- 7.6 Adverse effects to potential archaeological sites within the Designation Extent are generally expected to be in the negligible to low range. Of the nine houses, house sites and buildings identified within the Designation Extent, only one is expected to be significantly adversely affected (this being the possible destruction of a standing building that is possibly Robert Volkerk's House, site #14), five moderately affected and three affected to a no more than low level.⁴
- 7.7 Site #64, or Bunnythorpe Suburban Section 1510, is the one historic section site expected to be significantly affected due to the presence of sensitive sites. This section was purchased by Edwin Clevely, one of the founding settlers at Bunnythorpe, and the family's homestead (site #24) once stood on this property.
- 7.8 Adverse effects are also expected within historic sections that were owned by individual and families that resided at Bunnythorpe. Although the extent of the affected area(s) is expected to be only a very small percentage of the total land area within the historic sections that meet this qualification, being only 74 sections, totalling 91 ha. The level of effect within these sections is expected

⁴ The potential effects on these 9 sites are outlined at Table 7 of the Archaeological Assessment.

to range from low to moderate, depending on length of occupation and the strength of the owner's association with the civic life of Bunnythorpe.

- 7.9 A small number of roads, first built in the nineteenth century, will be affected by the Freight Hub but the level of effect is expected to be negligible. None of the affected roads will be removed completely and their names, which memorialise important local names, will be retained. There is also the potential for adverse effects to sites associated with Wellington–New Plymouth Railway (now incorporated into the NIMT), but no verified sites have been identified.
- 7.10 Twenty-three potential pre-1900 houses and the Glaxo Laboratories building are located within 500 m of the Designation Extent and may be subject to indirect, light or noise effects. However, it is anticipated that the proposed noise mitigation and lighting design within the Designation Extent will result in negligible effects to sites outside the Designation Extent. These external sites were included as part of the conservative approach undertaken in the Archaeological Assessment.

Overall conclusions on effects

- 7.11 Additional sites are expected to be discovered during the works to construct the Freight Hub, but the number of additional sites is expected to be relatively small. Eight houses, house sites and buildings located inside the Designation Extent will be affected to a low or moderate degree, and one house will be significantly affected. Further research is required as part of an archaeological authority process under the HNZPTA to verify the actual archaeological value of seven of these sites. One historic section will also be significantly affected.
- 7.12 The Glaxo Building is located beyond the Designation Extent and the proposed noise mitigation and lighting design will result in a negligible effect.
- 7.13 The analysis of the Crown Grant plans, and local electoral rolls indicates that other archaeological house sites are likely to be discovered inside the Designation Extent, but the number of additional sites is expected to be relatively small. Similarly, although no specific sites are identified at this time, a small number of archaeological sites with pre-1864 Māori associations are expected to be found inside the Designation Extent.
- 7.14 No verified archaeological sites of significant national value have been identified inside the Designation Extent.
- 7.15 Overall, relative to the total land area of the Designation Extent (177.7 ha), effects on archaeological sites and built heritage are limited and (as discussed

below) readily manageable under the provisions of the HNZPTA. Alternative locations for the Freight Hub, that were considered during earlier phases of investigation, were in areas of greater archaeological potential and would have resulted in the Freight Hub having a greater level of adverse effect.

8. MEASURES TO ADDRESS EFFECTS

8.1 HNZPT has a preference for management strategies that avoid adverse effects to archaeological sites. Due to the scale of the Freight Hub, adverse effects to some archaeological sites will be unavoidable.

8.2 In my opinion, the adverse effects on archaeological sites identified can be appropriately managed under the provisions of the HNZPTA. An archaeological authority, or authorities, to damage, modify or destroy archaeological sites will be required as a part of the management process. Due to the complexity of the Freight Hub and likely extent of effects to archaeological sites, HNZPT will require a research strategy and archaeological management plan to be prepared in addition to the standard documentation that must accompany any future authority application.

8.3 An archaeological management plan should include provision for:

- (a) identification and demarcation of specific sites or general areas where earthworks must only be undertaken under the direct supervision or control of the project archaeologist.
- (b) identification and demarcation of archaeological sites that are to be protected from accidental damage during construction and / or future operation of the Freight Hub through the education of contractors / operators and / or protective taping, signage or fencing where appropriate.
- (c) standard procedures to be followed in the event that an archaeological site, wāhi tapu, kōiwi (human remains) or tupapaku (corpse) is discovered outside of a controlled excavation, including:
 - (i) notification of affected / interested parties; and
 - (ii) suspension of works in the area of a discovery to enable iwi partners to undertake appropriate culture measures and allow for any required archaeological investigation.

- 8.4 The preservation of subsurface archaeological sites within open spaces inside the Designation Extent may be possible in some cases, but most will need to be excavated and documented in keeping with standard archaeological practices.
- 8.5 Further research into the age, significance and condition of the houses, house sites and buildings of moderate site potential that are identified in Table 7 of the Archaeological Assessment will be required. Some of Site may have an early twentieth century origin, in which event the statutory provisions and protections of the HNZPTA would not be applicable.
- 8.6 Accidental discovery protocols are not required if an archaeological authority is already in place but should be implemented for enabling works or construction activities that could affect unknown archaeological sites prior to an authority being granted. KiwiRail's internal guide to accidental archaeological discovery protocols details standard procedures that provide for an appropriate response in the event that such a discovery occurs. These protocols apply to all KiwiRail staff, representatives, contractors, subcontractors, tenants and any other person operating on KiwiRail land and are currently under revision.

9. RESPONSE TO SUBMISSIONS

- 9.1 I comment below on submissions relating to the archaeological effects of the Freight Hub, as made by:
- (a) Peter Gore and Dale O'Reilly (61); and
 - (b) Te Ao Turoa Environmental Centre – Rangitāne o Manawatu (69).

Peter Gore and Dale O'Reilly (61)

- 9.2 The weighting of heritage and archaeology factors was reduced between Workshop 2 and Workshop 3. These submitters have raised concerns that the reduction does not recognise the values of archaeological sites within the Designation Extent.
- 9.3 The weighting of MCA scores in heritage and archaeology category was not determined by the sum of individual site values, but by the ability of heritage and archaeology to aid in the selection of site options for the Freight Hub.
- 9.4 Heritage and archaeology scores were weighted higher during Workshop 2 as there was a greater range of scores (from 1 to 5) across the long list of nine

site options. The weighting was reduced for Workshop 3 as the range of scores was reduced (from 2 to 4) across the three short-list options and the individual option scores were themselves highly reliant on a proxy measure of late nineteenth century colonial occupation. This is because the short-listed sites were all in the vicinity of the historic Bunnythorpe settlement and although there are some differences between sites, the differences are not as great as when considering the long list sites.

- 9.5 The reduced weighting for Workshop 3 does not indicate that the archaeology became fundamentally less valuable, only that the scoring was a less useful measure for distinguishing qualitative differences between the shortlisted site options.
- 9.6 Submitters Gore and O'Reilly also raised concerns about:
- (a) the potential archaeological values associated with sections settled by Charles and Ellen Gore, and the Major family had not been recognised;
 - (b) potential impact on the Glaxo Laboratory building; and
 - (c) impact on a 'settlers hut' standing on "Section 16" within the Designation Extent.
- 9.7 In regard to potential archaeological values of sections, all historic sections within the Designation Extent, including those settled by the Gore and Major families, are explicitly recognised and addressed as potential archaeological sites in the Archaeological Assessment. Where possible, individual sections were linked to the original purchasers of the Crown Grant, and in particular:
- (a) All sections in the Bunnythorpe Crown Grant Plan purchased by John Major are identified in Appendix 1 and assessed for potential values and effect in Appendix 2 of the Archaeological Assessment.
 - (b) All sections in the Bunnythorpe Crown Grant Plan purchased by Charles and Ellen Gore are identified in Appendix 1 and assessed for potential values and effect in Appendix 2 of the Archaeological Assessment.
- 9.8 Indirect, non-physical, amenity effects (from noise and light pollution) on the Glaxo Laboratories building are described on page 47 of the Archaeological Assessment and are expected to be adequately addressed by the proposed mitigation works.

- 9.9 The submitters have referred to a 'settlers hut' standing on a 'Section 16', but as far as I am aware there is no 'Section 16' inside the Designation Extent. Sections 1216 and 1316 are located inside the Designation Extent, but there are no buildings or other structures visible on these sections in the 1942 or 2015 aerial photographs. The former section 1116 is outside and adjacent to the Designation Extent, but there are no buildings or other structures visible on this section in the 1942 or 2015 aerial photographs. There is a house on section 1226 that could be an historic building, but this house was not present at that location in 1942 and is assumed to be of post-1942 origin.

Te Ao Turoa Environmental Centre – Rangitāne o Manawatu

- 9.10 Te Ao Turoa Environmental Centre – Rangitāne o Manawatu have requested notification of accidental finds and participation in the management / safe keeping of archaeological materials. It is the expectation of HNZPT and in keeping with standard archaeological practice in New Zealand that iwi are kept informed and provided adequate opportunity to engage in all stages of the archaeological process. Any archaeological authority provided by HNZPT usually includes the following conditions that apply to affected iwi:
- (a) provision of access to sites to undertake tikanga Māori protocols consistent with cultural site safety requirements;
 - (b) 48 hours notification before the start and finish of archaeological works;
 - (c) cessation of works in vicinity of discovery of kōiwi or taonga and notification of iwi to enable appropriate tikanga protocols to be undertaken; and
 - (d) that iwi are to be provided with a copy of any reports completed as the result of archaeological work and are given an opportunity to discuss the report with the archaeologist if required.
- 9.11 Te Ao Turoa Environmental Centre – Rangitāne o Manawatu have also requested kaitiaki (cultural monitors) to oversee earthworks, ecology and archaeology. Arrangements for cultural monitoring fall outside of the provisions of the HNZPTA, but I would anticipate this will be organised between KiwiRail and their iwi partners.

10. RESPONSE TO SECTION 42A REPORT

- 10.1 I have reviewed the sections of the Section 42A Report relevant to my evidence, particularly Section 9.16 in respect of archaeology and historic heritage.
- 10.2 The Section 42A Report notes the concerns of submitters Gore and O'Reilly and that the submitters would like to see the NoR modified to address these concerns. I have addressed those matters above.
- 10.3 I support the recommendation in the Section 42A Report that the accidental discovery protocol is prepared in consultation with HNZPT and that the accidental discovery protocol conditions be modified to include:
- (a) details of contractor training regarding the skills necessary to be aware of the possible presence of cultural or archaeological sites or material;
 - (b) general procedures following the accidental discovery of possible archaeological sites, kōiwi tangata, wahi tapu or wahi taonga, including the requirement to immediately cease enabling or construction works in the vicinity of the discovery and the requirement to notify parties including, but not limited to, HNZPT; and
 - (c) procedures for the custody of taonga (excluding kōiwi tangata) or material found at an archaeological site.
- 10.4 I have reviewed and support the Proposed Conditions at Appendix 1 to Ms Bell's evidence.

Daniel Parker

9 July 2021

APPENDIX 1

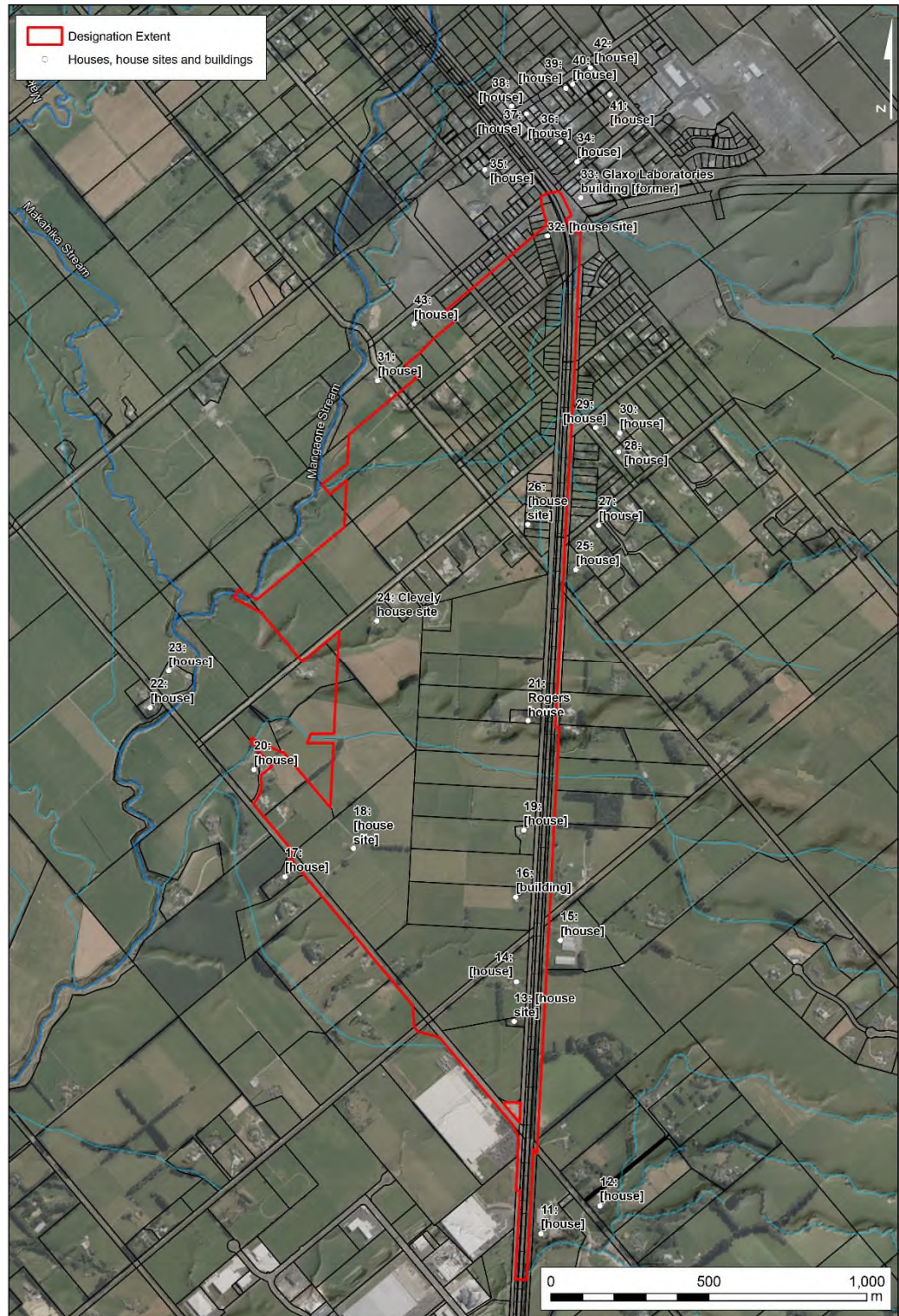


Figure 1 House sites, houses, buildings and named streams within the Designation Extent, or within 500 m of the Designation Extent.

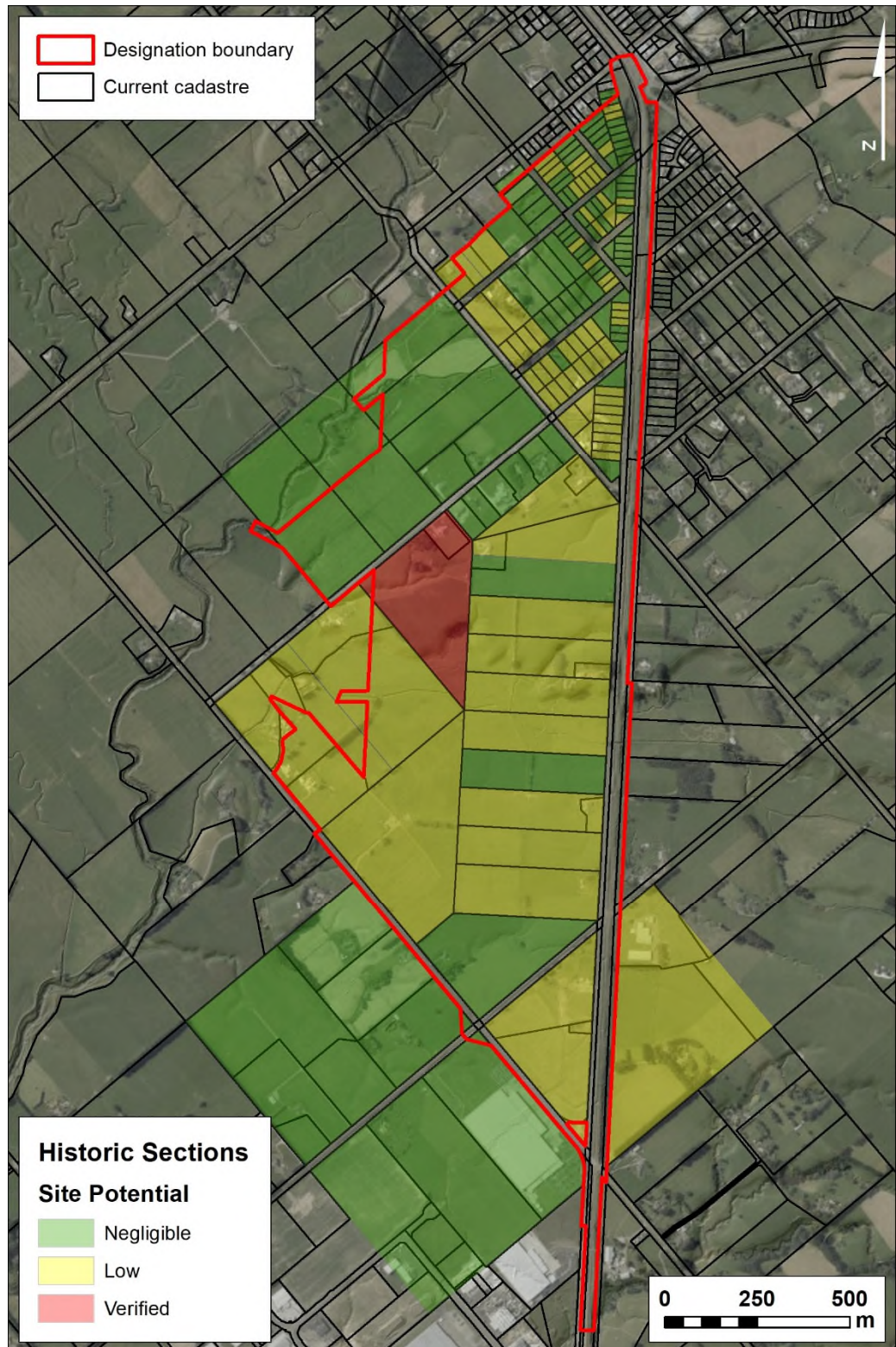


Figure 2 Historic sections (cadastral parcels), entirely or partially within the Designation Extent, classified by their archaeological site potential. The one section with verified archaeological potential is Bunnythorpe Suburban Section 1510.