ARCHAEOLOGICAL CONCEPT & MANAGEMENT PLAN

HIKANUI PĀ, TAINUI RESERVE: HAVELOCK NORTH

PREPARED FOR HASTINGS DISTRICT COUNCIL

View from Tainui Reserve & Hikaui Pā towards Te Matā... Te Mata te Tipuna

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INTRODUCTION

PURPOSE OF REPORT

Archaeology Hawke's Bay Limited (AHB) has been commissioned by the Hastings District Council (HDC) to provide an Archaeological Concept and Management Plan (CMP) for Hikanui Pā, Tainui Reserve. This CMP expands upon and seeks to address issues identified through the previously commissioned Archaeological Report that considered the Tainui, Tanner, Tauroa and Hikanui Reserves more generally (Carter 2021). It is recognised that this CMP has been advised by and built upon input from several specialist sources including mana whenua, arboriculturists, ecological scientists and other archaeologists. These inputs are referenced and acknowledged throughout the document. This document is intended to provide sufficient archaeological guidance and recommendations to provide mana whenua and HDC, in partnership, to develop and implement a vision for Hikanui Pā (V21/171) that above all else restores mana and dignity to the site whilst ensuring its long-term conservation and management in an archaeologically appropriate manner.

Whilst the focus of this CMP is on the main Hikanui Pā site, the recommendations are extended to include V21/245, and should be applied as appropriate to any currently unrecorded archaeological sites that might be encountered in future within Tainui Reserve. Both V21/245 and any future recorded sites of Māori association within Tainui Reserve and its environs are best viewed as part of a wider landscape of activities associated with Hikanui Pā. Thus 'Hikanui Pā' should be read as an umbrella name that includes sites within the wider area, recorded or not. However, for the purposes of this CMP we focus primarily on the area identified in ArchSite as V21/171 and V21/245. It should also be recognized that whilst the name used for the pā in this document is 'Hikanui', at time of writing this is subject to ongoing research and may be amended in future with newly recovered information.

Note that much of the 'front-end' of this document is a minimally updated version of the previously prepared Archaeological Report (Carter 2021). Rather than append Carter 2021 and require readers to consult both documents it was considered more 'user-friendly' to allow this document to function as a 'stand-alone' report.

SCOPE OF ARCHAEOLOGICAL CONCEPT & MANAGEMENT PLAN

This document considers the areas identified as Hikanui Pā including the pā interior, northern and western slopes, approach from Hikanui Drive including the verge, and recorded site V21/245 (Figure 1).

From a management plan perspective it is the threats to the physical integrity of the archaeological resource that require imminent adressing. However, from a Concept Plan perspective a longer term view of the ongoing restoration, management and sense of place is pre-eminent.

Thus, the scope of work has four key areas of focus:

1/ Management of existing vegetation, in particular the mature exotic trees;

2/ Management of revegetation;

3/ Management of activity;

4/ Restoration of mana and dignity.

Figure 1 Areas considered under this CMP are within red dashed lines.

LOCATION AND LEGAL DESCRIPTION

Hikanui Pā V21/171 and associated terrace site V21/245 lie within the Tainui Reserve, Havelock North (Figures 2 & 3).

Physical address: Tainui Drive, Havelock North, 4130

Legal Description: SEC 2 SO 314654 LOT 35 DP 26487 LOTS 33 34 DP 28692 BLK IV TE MATA SD PLANTATION RES TAINUI HERITAGE WALK.

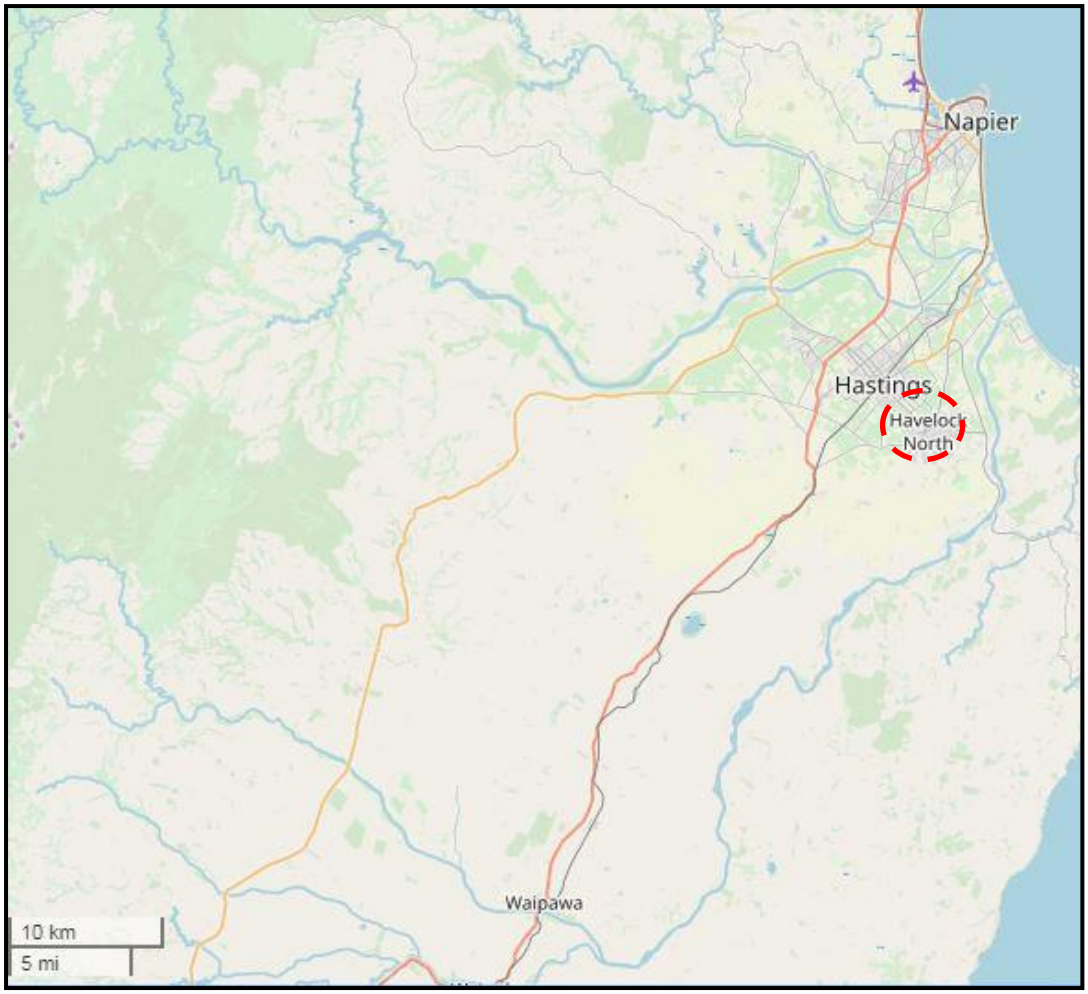

Figure 2 Indicative area of the Tainui Reserve and Hikanui Pā within wider regional context (Source: OpenStreetMap[1]).

[1] https://www.openstreetmap.org/export#map=10/-39.7067/176.8133

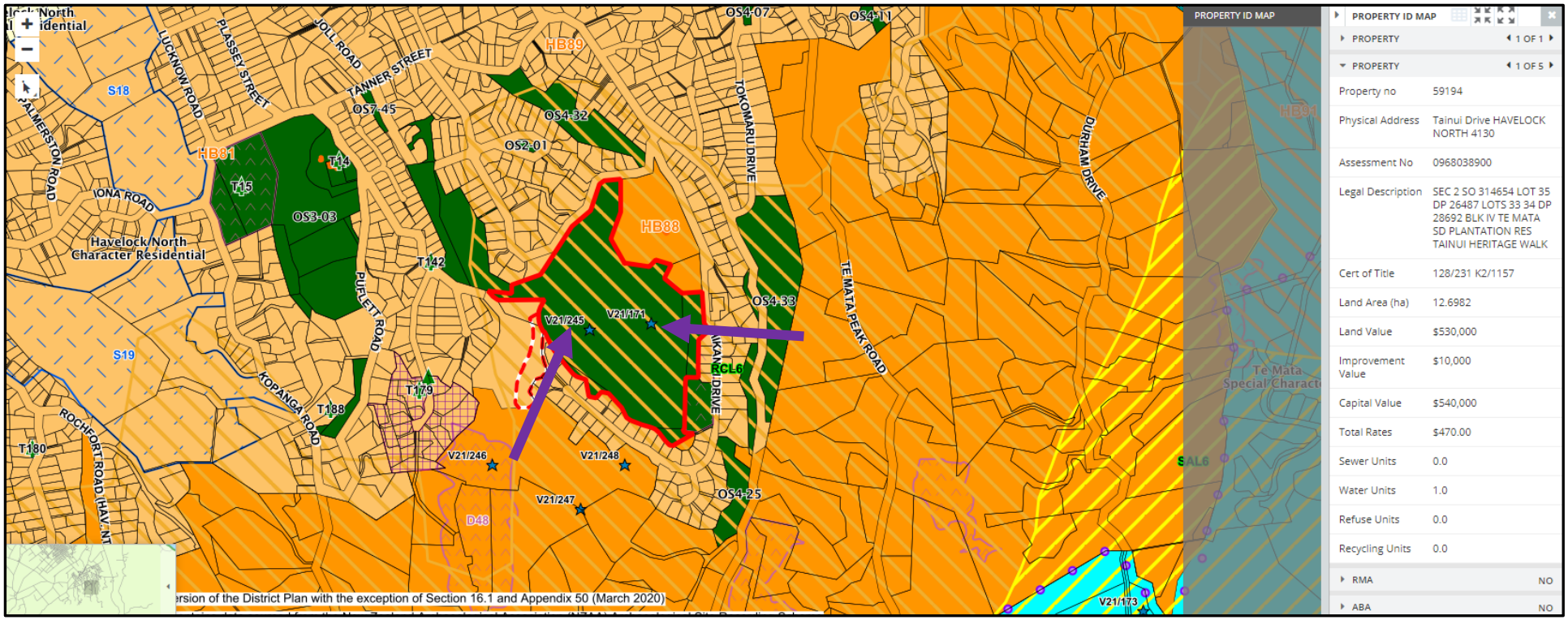

Figure 3 Tainui Reserve (red outline) as identified in Hastings District Plan, with recorded sites V21/171 (Hikanui Pā) and V21/245 (terraces) arrowed - note that V21/245 has been more accurately located slightly further west than currently shown in the District Plan overlay (Source: Hastings District Council Intramaps[2]).

[2] https://mapping.hdc.govt.nz/IntraMaps80/

KEY CONTRIBUTORS

Hastings District Council have commissioned Archaeology Hawke's Bay Ltd to prepare this Concept and Management Plan.

The key parties involved in the preparation of this document are:

- Te Taiwhenua o Heretaunga, ngā uri o Heipora and mana whenua
- Dr Anthony Cole - Te Toi Ōhanga Ltd
- Hastings District Council – commissioning of the plan and governing body for location, responsible for day-to-day management
- Richie Hill – Consultant arborist (Paper Street Tree Company)
- Rebecca Ryder & Sarah Rowan - Landscape Architects (BoffaMiskall)
- Heritage New Zealand Pouhere Taonga – legislative guidance
- Archaeology Hawke's Bay Ltd – commissioned to prepare the plan

HISTORICAL BACKGROUND[3]

The focus of this section is the archaeological information and an overview of pertinent publicly accessible information. Detailed discussion of Māori tradition and whakapapa will be left to those holding this knowledge.

MĀORI OCCUPATION

The coastal areas of Hawke's Bay are understood to have been widely occupied by Māori at the time of Captain Cook's arrival. One of the recorded names for the region (or parts thereof) was Heretaunga-hauku-nui (Heretaunga of the heavy dew), and it was a place renowned for being richly laden with resources (Salmond 1993: 139). The coastal plains, fertile river valleys and deltas, bush clad hills and inland freshwater lakes and swamps provided a resource base upon which to support intensive occupation.

[3] Minor modifications from Carter 2021

Whilst the NZAA archaeological site record of Te Mata, Te Māta, Te Matā, Te Karanemanema Te Mata o Rongokako, Te Mata o Rongokako[4] and Havelock North is relatively scant in comparison with other areas of Hawke's Bay such as the coastal plains and coastal hills of Tangoio, Poraiti and Waimarama, this is likely a reflection of recording and identification biases rather than a genuine reflection of an absence of archaeological occupation evidence. The current NZAA Site Record Database includes pits, pit clusters, terraces, garden sites, house sites and pā. This is an archaeological reflection of the intensity of occupation and range of activities that are understood from other sources such as the oral narratives to have been occurring throughout the wider area.

There are a number of pā and papakāinga recorded both archaeologically and in oral narratives in the nearby Te Matā... Te Mata te Tipuna environs including Takoremu / Rimirapa / Hikanui, Tawekanui, Iwipo and Ngaruahikapuu. The Tukituki Awa was a main means of transport inland, whilst the ridgelines formed foot tracks through the landscape (Te Manaaki Taiao et al 2018). The western side of Te Matā... Te Mata te Tipuna, including Havelock North and its surrounding hills are less well understood in terms of the current publicly available knowledge. However, work is being undertaken by Te Manaaki Taiao Te Taiwhenua o Heretaunga to improve this situation and record the surviving oral narratives as relate to this area in a similar manner as has already been undertaken for the eastern side of Te Matā... Te Mata te Tipuna. Whilst this remains a work in progress, a limited amount of information was able to be shared via the Cultural Aspirations for the Karanema Reserve Briefing Paper (Te Manaaki Taiao Te Taiwhenua o Heretaunga 2021)

POST-EUROPEAN CONTACT OCCUPATION

FIRST CONTACT

The first documented encounter between Hawke's Bay Māori and Europeans occurred at Te Matau-a-Māui, when several fishing waka approached the Endeavour and several attempts at trade were undertaken. During these negotiations it is recorded that Tayeto (Tupaia's boy) was seized, however, he managed to escape back to the Endeavour. This incident gave rise

[4] The naming convention adopted by Te Manaaki Taiao Te Taiwhenua o Heretaunga in association with Te Toi Ōhanga (2018) is adopted here-in. For reporting purposes the term Te Matā … Te Mata te Tipuna is used following the convention established in the aforementioned document.

to the name associated with the area by many to the present day, Cape Kidnappers (Salmond 1993).

EARLY EUROPEAN INFLUENCES

By the 1820s, due to passing English and American vessels, Māori were aware of the array of new goods on offer, including muskets, animals and plants. By the 1830s potatoes and pigs were firmly established within Māori communities, and metal tools adopted. Musket warfare too had taken its toll (WAI0201: 3.6).

Throughout the mid-1820s – 1840s the Heretaunga Plains was largely deserted by Māori because of the musket massacre at Te Pakake in 1824. It was during this time that several whaling stations established throughout the area. These included two operated by William Morris: Ranga Ika and Kidnappers (MacKay 1939). Throughout the wider region, particularly around Ahuriri, traders and missionaries were also establishing themselves.

TAINUI RESERVE & HIKANUI PĀ

The township of Havelock North, within which the Havelock Reserves are located was founded on the Karanema Block. A brief history of this Block has been presented in the Cultural Aspirations for the Karanema Reserve Briefing Paper, along with Michael Fowler's historical research paper[5], which should be referred to along with the information presented herein. According to Wright (1996) the Karanema Block land had been separated out of the Te Mata Block to aid in settling disputes.

According to Wright's (1996) sources, the site of Havelock North was 'little used by Māori', but that there were villages and other settlements nearby, and the Tukituki River valley was recognized as an important route inland. The presence of Hikanui Pā along with the extensive oral narratives indicates that the sources used by Wright may be inaccurate or misinterpreted. Rather the observations may have reflected a level or pattern of occupation at a specific point in time (mid 1800s) rather than an accurate reflection of a more 'normal' level of occupancy and land-use. It is hoped that further information relating to the Māori occupation and land-use of this area may become available through the wider Management

[5] https://www.hastingsdc.govt.nz/hastings/projects/reserve-management-plans-2021/

Plan process and be able to be incorporated into both the archaeological and cultural values and ongoing management.

The land currently referred to as the Havelock North Reserves (Tainui, Tanner, Tauroa and Hikanui) were part of a large land block purchased in 1839 by William Barnard Rhodes that encompassed much of the region including Te Matā... Te Mata te Tipuna (Wright 1996). The 'Te Mata Block' was sold again in 1855 as part of a formal land purchasing policy, negotiated by Donald McLean (ibid: 13). However, in this sale both Karenema's Reserve and Kahuranaki were excluded. By 1858 a sale of Karenema's Reserve had been negotiated by the Crown and settler applications for the new block were being made. It is noted that Karenema's Reserve remains the subject of Treaty of Waitangi Claims and Wright's 1996 information is likely to be inaccurate in some respects (as a result of new information coming to light).

At the time of sale, Karenema's Reserve was highly desirable as a rural service centre, being located on a major coastal to inland trade route, and surrounded by large runholders including Chambers, Couper, Williams, Rhodes, Tanner and Ormond. Early maps and town plans identify several 'Reserves' within the Havelock North boundaries (Figure 3)

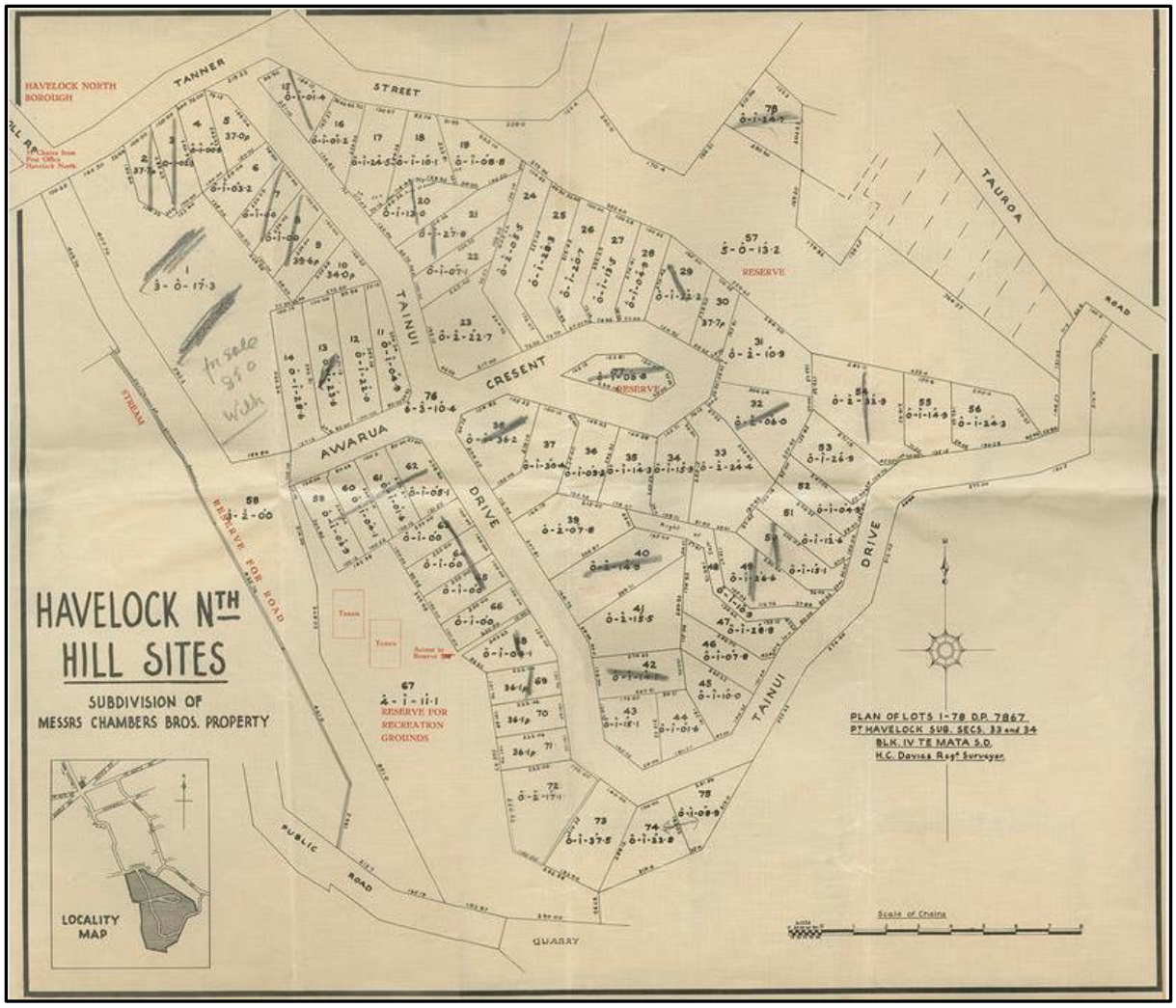

Figure 4 Undated map of Havelock North township identifying several areas of reserve (https://collection.mtghawkesbay.com/objects/56895/map-havelock-north-hill-sites).

DESCRIPTION[6]

GEOLOGY & TOPOGRAPHY

The Tainui Reserve and Hikanui Pā environs is one of moderate to steep slopes which drop into a series of gullies. To the east lies Te Matā... Te Mata te Tipuna range, the Tukituki River and the coast, while to the north lies Karamū Stream and associated tributaries. It should be noted that the current alignment and size of the Karamū Stream does not accurately reflect the former river corridors which were much broader, more braided and flood prone prior to 19th and 20th Century modifications. The town of Havelock North extends primarily to the

[6] Taken in part from Carter 2019

north of Tainui Reserve, Te Matā... Te Mata te Tipuna Range lies to the southeast with the 'Havelock Hills' extending to the south and east. To the north and west lie the extensive river-braided Heretaunga Plains. The soils of the Havelock North area are defined as brown and gley types and are described as deep and poorly - imperfectly drained with moderate to high soil moisture profiles (S-Maps Online; Manaaki Whenua[7]).

Hikanui Pā is located on a ridge spur with steep drops to the north, south and west, whilst to the east the spur undulates to join the main ridgeline (Hikanui Drive). The gullies below the pā exhibit evidence that formerly they supported a stream-like flowing water environment, likely with pockets of 'wetland' (Cole pers comm[8]).

VEGETATION & CLIMATE

The Tainui Reserve sits within an urban residential environment which is undergoing accelerated expansion and development. Historically, it is likely that the vegetation was akin to that of nearby Te Matā... Te Mata te Tipuna, likely including Kahikatea, Pukatea, Tawa forest with pockets of Kauri / Taraire and Kohekohe-Tawa forest (Te Matā... Te Mata te Tipuna vegetation data taken from Te Manaaki Taiao et al 2019: Figure 9). It has been identified by Dr Anthony Cole (pers comm) that there are several active puna (springs) within the Reserves including Tainui and that water retention in the gullies was likely significantly better in the past than at present. This would include those gullies in immediate proximity to both Hikanui Pā, and terrace site V21/245.

Currently, the vegetation in the immediate environs of Hikanui Pā and terrace V21/245 is dominated by mature pine, gum and macrocarpa. More broadly within the Tainui Reserve there has been considerable planting of native species including within areas addressed in this CMP.

Present day Hawke's Bay has typically hot dry summers and mild winters with moderate rainfall suited to the production of a range of exotic crops including grapes, stone-fruits and pip-fruits. Historic records and surviving trees suggest that the climate has been amenable to similar species since at least their introduction to the region. However, the extent to which

[7] https://smap.landcareresearch.co.nz/app
[8] Dr Anthony Cole

this climatic status reflects the longer-term history of the region or is linked to more recent (post Industrial Revolution) climatic changes is not explored herein.

CURRENT LAND-USE

The predominant land use surrounding the Tainui Reserve and by extension Hikanui Pā and V21/245 is suburban residential. The Reserve and archaeological sites within are managed by HDC as recreational environments and feature numerous walking and cycling tracks both formally constructed and informally created. Tainui Reserve, including the Hikanui Pā environs is popular with walkers, runners and off-road cyclists, and is highly valued as green-space by the local community.

HIKANUI PĀ & V21/245

HIKANUI PĀ

Archaeological features evident within Hikanui Pā (V21/171) as defined in the New Zealand Archaeological Association Site Record Form (NZAA SRF) include pits, terraces and a remnant defensive ditch and bank. Activities and occupation associated with the pā are likely to have extended some distance from the pā boundaries as defined in the SRF. Hikanui Pā is located on the end of a ridge and drops steeply into the surrounding gullies on three sides. Its interior is approximately 90 m long, dropping steeply after ca. 60 m. It seems unlikely that directly associated features extended far beyond the break of slope due to its steepness, although current walking tracks around the upper edge may have modified or destroyed former palisade terraces. The terrain to the east, beyond the remnant ditch (towards Hikanui Drive) is gentler and potentially more amenable to activities directly associated with the pā. To date no archaeological features or materials have been reported in this surrounding area, despite the presence of both formal and informal walking tracks and cycle paths, and more broadly extensive residential development.

TERRACE V21/245

The terraces of V21/245 were not clearly located according to the NZAA SRF. The site has now been located, however only one of the two reported terraces can be clearly identified. It is possible that the second is too eroded to be recognized or has been lost due to ground slippage since its original recording. These terraces would have had line of sight to Hikanui

Pā, vegetation allowing, and across to Te Matā... Te Mata te Tipuna and the Heretaunga Plains more broadly. Although not a direct component of the pā, they likely formed part of a contiguous and contemporaneous landscape of occupation and activity. The term 'Terrace' is generically applied to any area of artificially flattened or stepped ground. Depending upon size, shape, location, aspect etc these could variously be interpreted as areas of gardens, occupation or other activity.

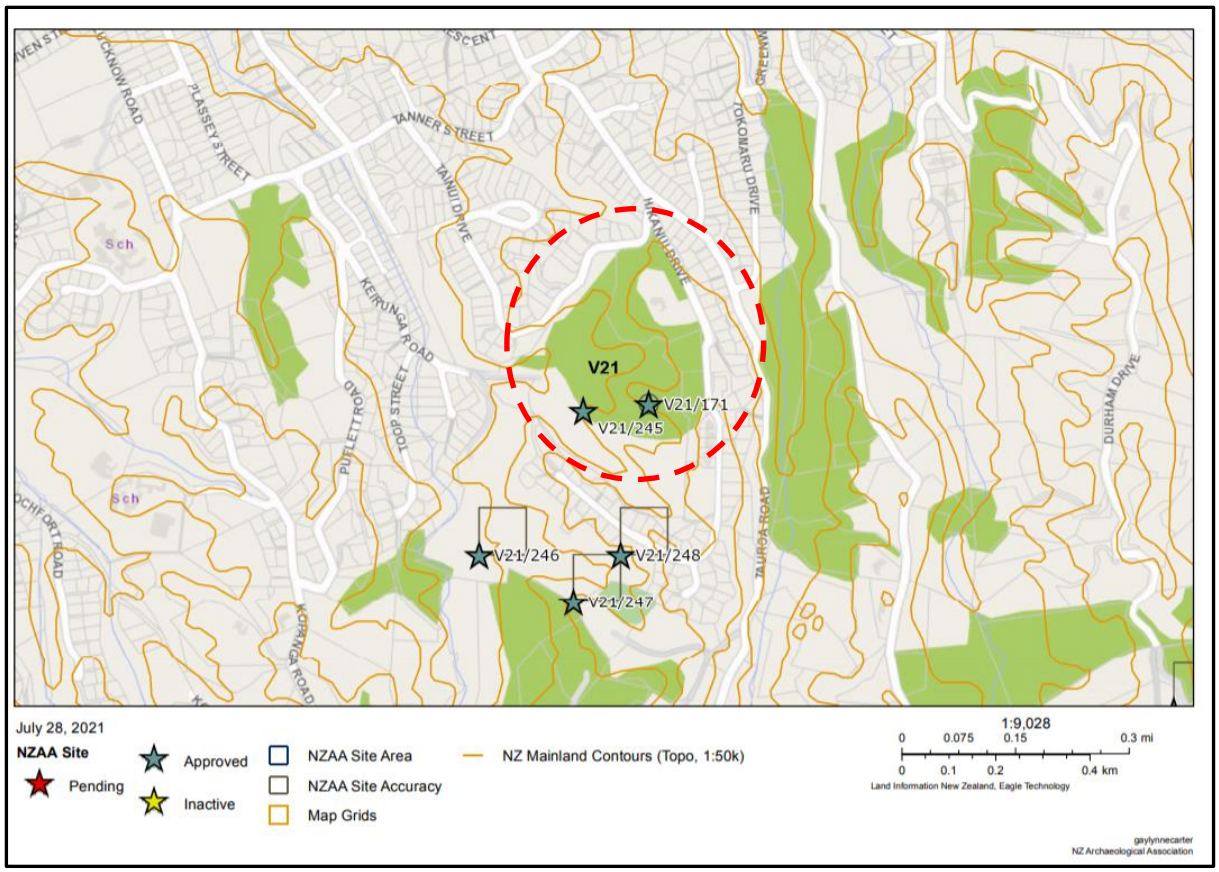

Figure 5 Currently recorded archaeological sites in vicinity of Tainui Reserve – within red dash (ArchSite).

CONDITION OF RECORDED ARCHAEOLOGICAL FEATURES

HIKANUI PĀ (V21/171)

Hikanui Pā has been previously surveyed, initially by Elizabeth Pishief (1985), and more recently the pā and the Tainui Reserve more broadly were subject to an Archaeological Assessment and Conservation Plan (draft) (Campbell, ca. 2010: Unpublished Report for HDC). Between these two surveys the site was visited by A. Walton and the conditions and identifiability of the features reported in the SRF. As part of Campbell's assessment the

surviving features were digitally surveyed by Ben Thorne and Colin Sutherland, and the location of mature trees within the pā recorded. The level of detail provided in this work makes it unnecessary to re-survey the site. However, it has been noted that Thorne and Sutherland were unable to relocate several of the features identified by Pishief, particularly on the northern edge. Combined, the Pishief and Thorne surveys (Figures 5 & 6) provide a very useful basemap upon which to monitor and record change in condition. The combined surveys are used as the basis for the recommendations in this CMP (Figure 7), as it is assumed that the features identified by Pishief are still present, albeit less visible at the surface. As Pishief's sketch is not drawn to a precise scale the features on the combined image are relocated as best possible relative to common features identified in Thorne's plan. Therefore, the Pishief features, where no longer visible on the surface are indicatively located only.

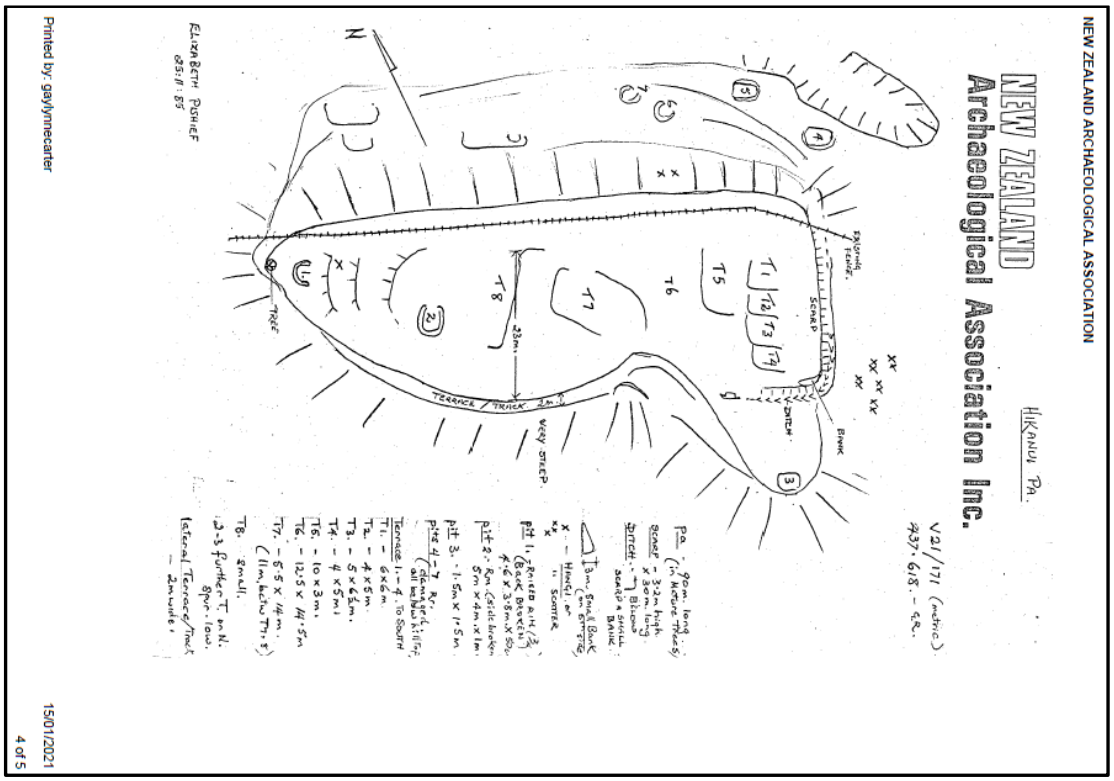

Figure 6 Elizabeth Pishief's 1985 survey of Hikanui Pā (Source: SRF).

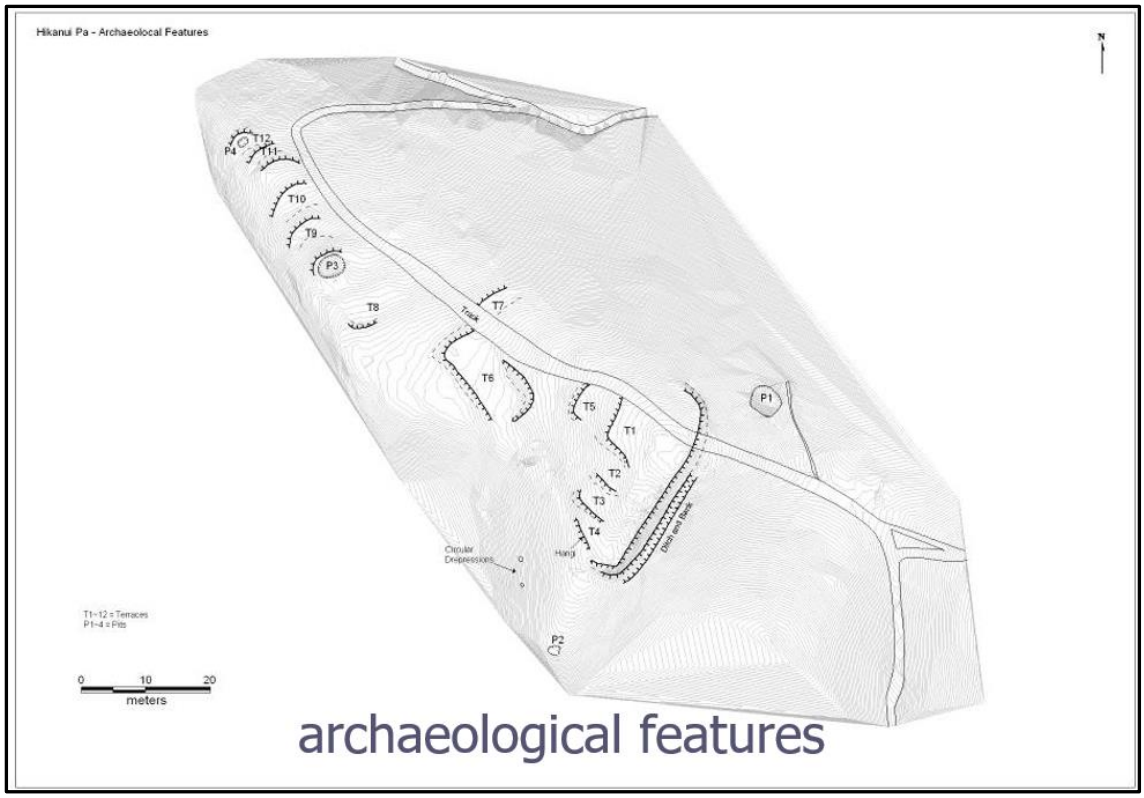

Figure 7 Ben Thorne's ca. 2010 digital survey of Hikanui Pā (Source: Campbell Presentation).

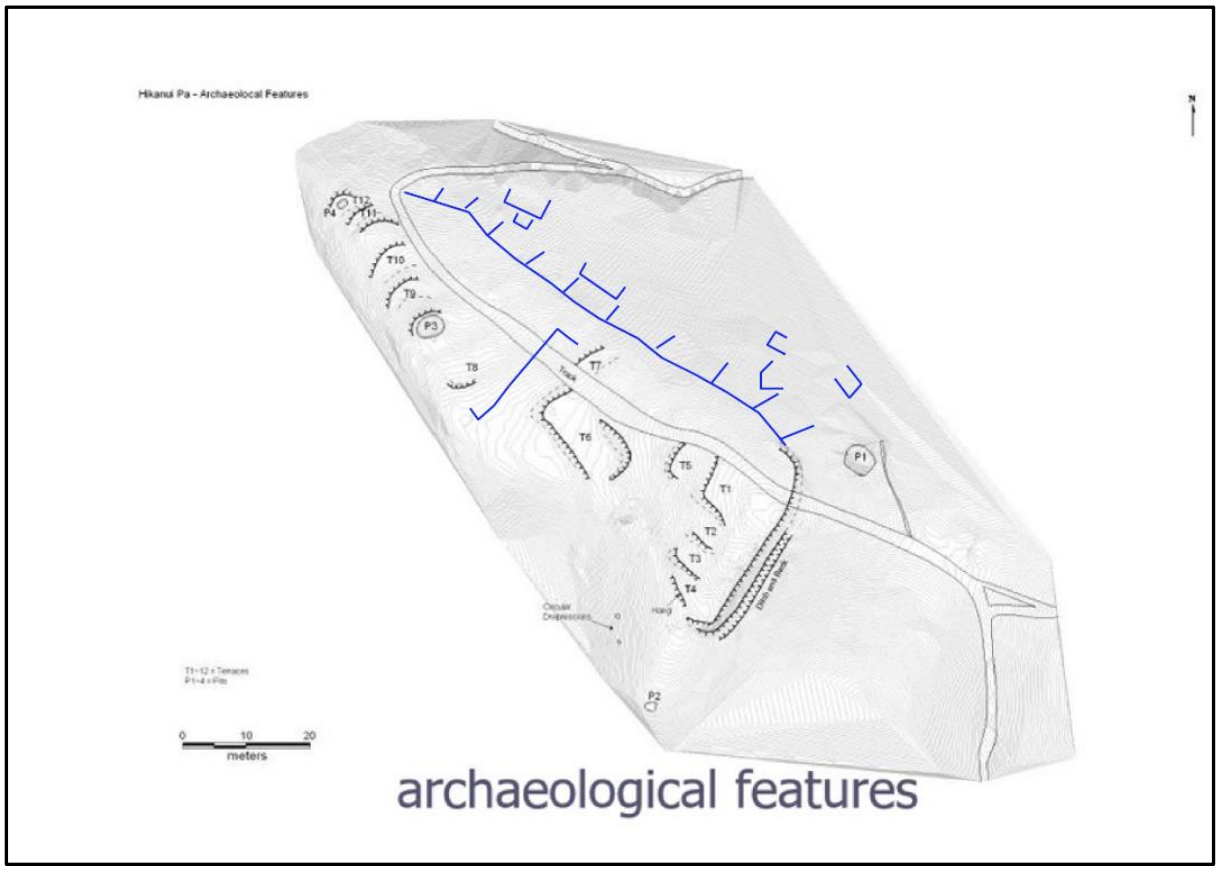

Figure 8 Combined Thorne & Sutherland and Pishief features (blue – indicative locations) plan.

Several inspections of the pā site have been undertaken in the course of this and associated work relating to the short-term management of 'at-risk' trees within the pā and terrace environs. Several of these visits have been in the company of representatives of HDC, arboreal specialists and mana whenua. These site visits have provided multiple opportunities to view the surviving above ground features, search for eroding evidence of subsurface features and to assess both the current condition and the apparent impact of current management and public activity on the physical integrity of the pā site, and to a lesser extent the terrace site.

It is apparent that the surface visibility of many of the internal features of the pā have deteriorated even since the survey undertaken in 2010. Although most of the features could be relocated, without the aid of the pre-existing surveys a number of these would have been difficult to identify. Several walking paths, both formal and informal bisect the site interior, including crossing the ditch and bank, and skirt around the edges of the ridge spur. In the past cyclists have also used these paths, although a 'kissing' gate has been installed at the east entrance to the pā to deter cyclists from entering the main pā area. The main walking path at the time of this CMP is a broad (2m +) bare earth linear running the length of the pā before it becomes a narrower made track winding down the ridge to the gully below (Figure 9).

At the eastern end the entry point crosses the ditch and bank causing damage. According to the SRF this track in the past has been gravelled, though little or no evidence of this surface now remains. In addition to the formal tracks there appear to be a number of well-established informal tracks directly affecting the pā that are in regular use by Reserve users.

Data captured by FOLKL via motion activated camera's operating between 16 - 22 Nov 2021 identified that whilst the vast majority of users were pedestrians (with and without dogs), on rare occassions recreational cyclists traversed the track. Similarly, the majority of users adhered to the main walking track, with occassional examples of users following the informal tracks.

Figure 9 Interior of Hikanui Pā looking approximately northwest.

As with the wider Tainui Reserve, the pā area is heavily vegetated with a mixture of mature exotic pine, gum and macrocarpa trees, along with semi and immature trees of these species. These trees currently pose a significant risk to both the surface and subsurface physical integrity of the pā. There is evidence of both historic and recent tree-fall events that have resulted in significant disturbance to the ground surface from dislodged root balls (Figure 10). The extensive root systems of these trees are also likely disturbing, modifying or destroying subsurface features such as hearths, postholes and pits. Ephemeral features that may be of significance in understanding the internal organisation and activities of the pā such as stakeholes and working areas will be modified or destroyed by root action on the scale observed. The presence of burnt stone eroding from the surfaces has been recorded since Pishief's 1985 observations, and has been noted on several occassions in multiple locations along the track since the commencement of this current report preparation.

Figure 10 Example of damage occurring to pā and potential associated public safety risks through uncontrolled tree fall: scale (arrowed) = 1 m.

In addition to the vegetation and path usage, it is also evident that historically and more recently Reserve users have acted independently of HDC and undertaken activities that have potentially affected the physical integrity of the site. These include the repositioning of three large logs in a tringle arrangement within the pā (Figure 11) and bike jumps at the Hikanui Drive entrance to the Reserve (Figure 12).

Figure 11 Interior of Hikanui Pā as viewed towards Hikanui Drive entrance with introduced logs in foreground.

Figure 12 Informal bike jump track at Hikanui Drive entrance.

TERRACE SITE V21/245

Terrace site V21/245 has a large macrocarpa tree immediately adjacent the one remaining (identifiable) terrace (Figure 13). The second terrace could not be conclusively identified. There are several potential remnants, but given the vegetation history of the Reserve these could equally be natural features such as eroded tree boles. It is more likely that the surface visible elements of the second terrace have been lost to erosion.

Figure 13 Surviving terrace recorded as V21/245 (arrowed).

ACCESS, VISITOR FACILITIES AND INTERPRETATION

There are five access points into Tainui Reserve: Awarua Crescent, Keirunga Rd, Hikanui Drive (x 2) and Tainui Drive. The primary access point for Hikanui Pā is via Hikanui Drive which is currently in part shared by pedestrians and mountainbikers accessing the nearby downhill track.

Signage at the entry to the Reserve and variously located throughout the track system identifies the routes and their designated user status: pedestrian only, cycle only or shared. However, the location of neither Hikanui Pā nor terrace site V21/245 is identified on the

current signage. Nor is there any information relating to the Reserve or its recorded and oral narratives. Hikanui Pā is only identified on the ground by a small rusted sign 'Hikanui Pā' (Figure 14). There is no interpretative information, nor have there been until recently any explanations or guidelines for the public around the legal protection afforded to archaeological sites. The terrace site V21/245 is currently unmarked, noting it has only recently been relocated on the ground.

Figure 14 Extent of current signage relating to Hikanui Pā

In response to the recommendation of the previous report (Carter 2021) HDC have installed temporary explanatory signage to deter jump-track digging and use of informal paths. Unfortunately on several occassions these signs have been vandalized or removed. It is understood that HDC when made aware of damage or removal are replacing the temporary signage to maintain the messaging. Similarly, whilst the signage shows that the Hikanui Pā track is walking only, it is apparent through track marks and photographs provided by other Reserve users that some cyclists continue to use this track as an access route through the Reserve.

ARCHAEOLOGICAL SIGNIFICANCE

Tainui Reserve includes two recorded archaeological sites and although no additional archaeological features have been identified via site visits and other research, it is likely that there are currently unrecorded features present within the Reserve boundaries. Work undertaken by Dr Anthony Cole, in association with Te Manaaki Taiao, Te Taiwhenua o Heretaunga has revealed that Tainui Reserve was likely a surviving remnant of the original forest vegetation of the region. Whilst the current and recent historic (latter 1800s to present day) vegetation is dominated by exotic tree and weed species, there is potential for a unique link to the vegetational past via seed bank preservation. From an archaeological perspective, understanding the ecological setting within which Hikanui Pā was located would be of immense value in better understanding the wider landscape and predicting possible locations for currently unrecorded archaeology both within the Reserve and more broadly.

The location of Hikanui Pā and terrace site V21/245 within an essentially urban / residential environment with potentially easy pedestrian access makes it somewhat unique and offers significant opportunities for education and awareness. Hikanui Pā itself is of considerable significance to mana whenua. Whilst this is not adressed directly herein, it is essential that the cultural values expressed through reports prepared by mana whenua be included in considering the significance of Hikanui Pā specifically and Tainui Reserve in general.

INFLUENCES ON CONSERVATION AND MANAGEMENT POLICY

Whilst this document is described as a Concept and Management Plan it is important to frame the recommendations herein within the same guidelines as would be expected of a Conservation Plan (Table 1). This ensures that the recommendations are robust enough to meet both the management / concept criteria tasked and a more Conservation Plan directive.

Table 1 Policies and wider contributing considerations incorporated into the outcomes of this report.

ICOMOS New Zealand Charter for the Conservation of Places of Cultural Value	HNZPTA 2014	Te Tiriti o Waitangi	RMA 1991	Community attitudes and expectations
The International Council on Monuments and Sites (ICOMOS) encourages best practice in the protection and management of historic heritage. There are numerous ICOMOS principles and practical guidelines that are of relevance in this case. The full NZ Charter is appended. The principles of ICOMOS serve to provide meaningful guidance around meeting international standards of care for our historic heritage. Aspiring to these principles and standards ensures that the CMP delivers recommendations that help ensure the best measures currently available are met.	The Heritage New Zealand Pouhere Taonga Act 2014 provides a legislative framework for the protection of archaeological sites in New Zealand. All recommendations for Conservation and Management are in accordance with the provisions of this Act. The relevant sections are appended. There are several physical issues that currently threaten the archaeological integrity of Hikanui Pā and V21/245. Most obvious is the inappropriate vegetation (mature exotic trees), along with user behaviour and environmental factors. These issues are legally required to be addressed.	Te Tiriti o Waitangi and the principles thereof are increasingly being incorporated into local governance. Key principles under development for HDC are embedded as far as possible within the aspirations of this CMP. Mana whenua inputs have been integral to understanding and developing a long-term vision with achievable short-term outputs. The aspirations of mana whenua have provided clear direction and unity of vision throughout the development of this CMP.	The Resource Management Act 1991 is currently undergoing significant changes. However, HDC is required to sustainably manage the archaeological resources under its care via its District Plan (relevant sections of current HDC DP appended). As part of HDC's duty of care there is a clear emphasis and commitment to addressing the current situation with Hikanui Pā and V21/245 via the Havelock North Reserves Management Plan that is currently in preparation.	It is recognized that Tainui Reserve is of considerable value to the wider community. As any CMP affecting Hikanui Pā and V21/245 will impact a significant proportion of the reserve the expectations and attitudes of all user groups including but not limited to: mana whenua, recreational users and educational users; must be considered. Obtaining factual data around user groups and behaviour via the FOLKL studies has been integral to incorporating community values into the CMP.

THREATS TO HERITAGE

THREAT IDENTIFICATON & MITIGATION

Key aspects of this Concept and Management Plan are to: 1/ identify current risks to Hikanui Pā and V21/245; and 2/ recommend appropriate actions to remove or mitigate actual or potential damage.

The primary threats identified are:

- Natural processes including weather and erosion
- Visitor activities
- Loss of integrity
- Loss of information
- Inconsistent or inappropriate management

These threats are specifically addressed below.

NATURAL PROCESSES INCLUDING VEGETATION AND WEATHER

The Hikanui Pā and V21/245 environs are dominated by mature exotic tree species including pine, gum and macrocarpa. In many cases these trees have been subject to limited maintenance or control and are increasingly at risk of partial or complete failure. This poses risks relating to damage caused to archaeological sites or features through the fall impact, damage caused by the root ball, and felling and extraction where public safety is a factor. Where these trees are directly growing on or near archaeological features they are also potentially damaging or destroying sub-surface features via root action.

Tainui Reserve has numerous steep sided gullies, including those directly associated with Hikanui Pā and terrace site V21/245. There is evidence that these slopes are unstable, and weak areas are likely to subside during heavy rain events. In the previous report it was suggested that a staged approach to the removal of the trees might be the best option. It has become apparent since then that the rate of tree failure is increasing and will likely continue to do so at an accelerating rate (Hill pers comm & 2022). It has also become apparent that for tree management purposes Hikanui Pā needs to be considered in three

main zones: pā interior, northern slope and western slope (Hill 2021, 2022). For consistency between this report and the arboreal reports the zones determined by Richie Hill are adopted in this document. In addition to Hill's three primary zones the area between Hikanui Drive and the pā interior (kissing gate); and the area around V21/245 are considered. This zoning is necessary because the topography, tree conditions and archaeological risks are distinctly different between those zones. Therefore, zone specific management may be more appropriate than a 'blanket' approach.

The key archaeological management issues that require consideration when determining how to best manage the trees are:

- Damage currently being caused by growing root-balls
- Damage caused by uprooting
- Damage caused by fall impact (controlled and uncontrolled)
- Damage caused by extraction
- Damage caused by machine access
- Damage caused by slope failure (existing and potential)
- Damage caused by weathering (existing and potential)

VISITOR ACTIVITIES

The primary activities around Hikanui Pā and V21/245 centres around walking / jogging / recreational cycling and mountain biking. The wider Tainui Reserve as well as Hikanui Pā is a popular off-leash dog exercise area. At present there is an essentially shared track space at the Hikanui Drive entry where both pedestrians and mountain-biker's gain access to the reserve and their respective designated tracks. There is also an area of informal jump-track near the Hikanui Drive access point. As there is no shared cycle/ pedestrian path in this area of the reserve there should be no need for non-mountain-bike cyclists to be accessing from this point. However, at present the track through Hikanui Pā provides a direct connection to the remainder of the Reserve and the shared tracks. Further, there is currently no designated up-hill return track from the official down-hill mountain-bike track. It is apparent through photographs provided by Reserve users along with the FOLKL data that the track through Hikanui Pā may periodically be used as a link by cyclists through the Reserve.

The key archaeological management issues that require consideration when determining how to best manage visitor activities are:

- Uncontrolled movement resulting in informal tracks and shortcuts causing actual and potential damage
- Localized pressure from users on main through track to access wider reserve
- Risk of fossicking where archaeological materials are exposed
- Conflict between user groups especially cyclists and pedestrians*[9]
- Inappropriate cyclist use of the Pā track

LOSS OF INTEGRITY

Archaeological sites are not isolated locations, rather they form part of often complex and busy landscapes that reflect the lives of those in the past. Sites such as pā and terraces all had roles and significance to the people that constructed and used them. Even in disuse, they may have served as locational markers or foci of important narratives and events. At present Hikanui Pā and terrace V21/245 are largely lost in the landscape. This loss of place is resulting in inadvertent damage through lack of knowledge or understanding.

The key archaeological management issues that require consideration when determining how to best manage loss of integrity are:

- No formal transition or recognition between wahi noa and wahi tapu spaces*
- Inappropriate behaviours within wahi tapu spaces*
- Lack of connectedness to wider archaeological and cultural landscape*

LOSS OF INFORMATION

At present there is no public information to aid visitor recognition of, or appreciation for Hikanui Pā, the wider archaeological and cultural landscape or the individual features within the pā. As part of the Creative Activity being undertaken by mana whenua it has become apparent that there has already been a significant loss or retraction of knowledge around this site. Whilst some of the oral narrative has been lost, or is incomplete, the physical

[9] * these issues may not pose direct archaeological risks but their solutions need to be considered from an archaeological perspective

evidence: 'archaeology' – remains relatively intact. Whilst there is no driver or directive to extract knowledge and information from the physical remains of the pā, its existence and protection does ensure some level of information survival into the future.

The key archaeological management issues that require consideration when determining how to best manage loss of information are:

- How best to preserve and protect the surviving physical evidence
- How to present information to the visitor groups
- How to connect Hikanui Pā to the wider cultural and archaeological landscape
- How 'managed' should the visitor experience be in terms of information presentation

INCONSISTENT OR INAPPROPRIATE FUTURE MANAGEMENT

It is imperative that future management actions are fully considered and adequately resourced. This will include for example:

- Routine maintenance of pā tracks and monitoring for inappropriate visitor behaviours
- Pro-active rather than reactive management of invasive weeds including wilding exotic trees
- Pro-active monitoring and remediation of erosion
- Archaeologically and ecologically sound revegetation strategies including species selection and methods of regeneration
- Monitoring and control of pest species such as rabbits, possums and rodents that may directly or indirectly impact the long-term preservation and stability of the pā environs
- Management decisions based on what is best for the sites not economically or politically favourable.

ACTION PLAN

Whilst a number of threats and risks to Hikanui Pā and V21/245 have been identified and discussed in previous sections, due to their inter-relatedness these can be addressed under three broad topics:

1. Management of trees and erosion
2. Visitor experience
3. Long-term aspirations

MANAGEMENT OF TREES & EROSION

The current tree population in terms of species composition, age, health and appropriateness for archaeological site management is unsustainable. This applies across the three zones of Hikanui Pā along with the additional two zones previously identified. Figures 15 and 16 below illustrate these zones which reflect the area this CMP has been tasked with addressing.

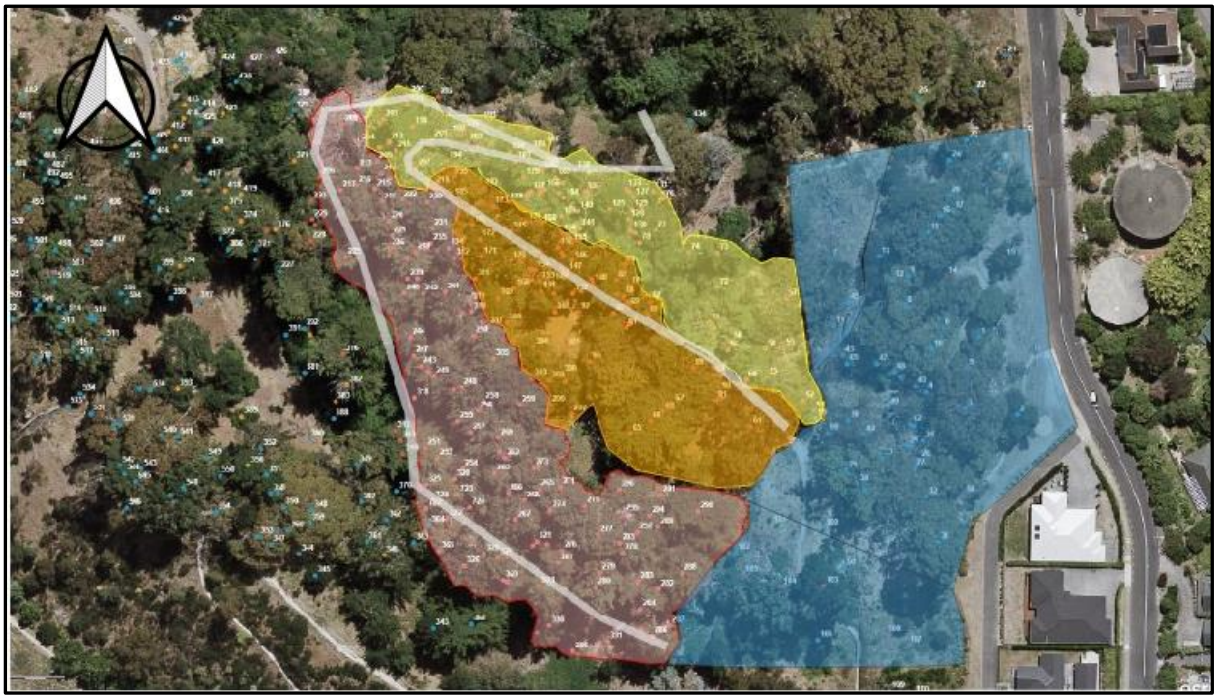

Figure 15 Hikanui Pā and surrounds with tree management zoning: yellow = northern slope, orange = pā interior; pink = western slope; blue = Hikanui Drive to kissing gates (Base image Hill 2022).

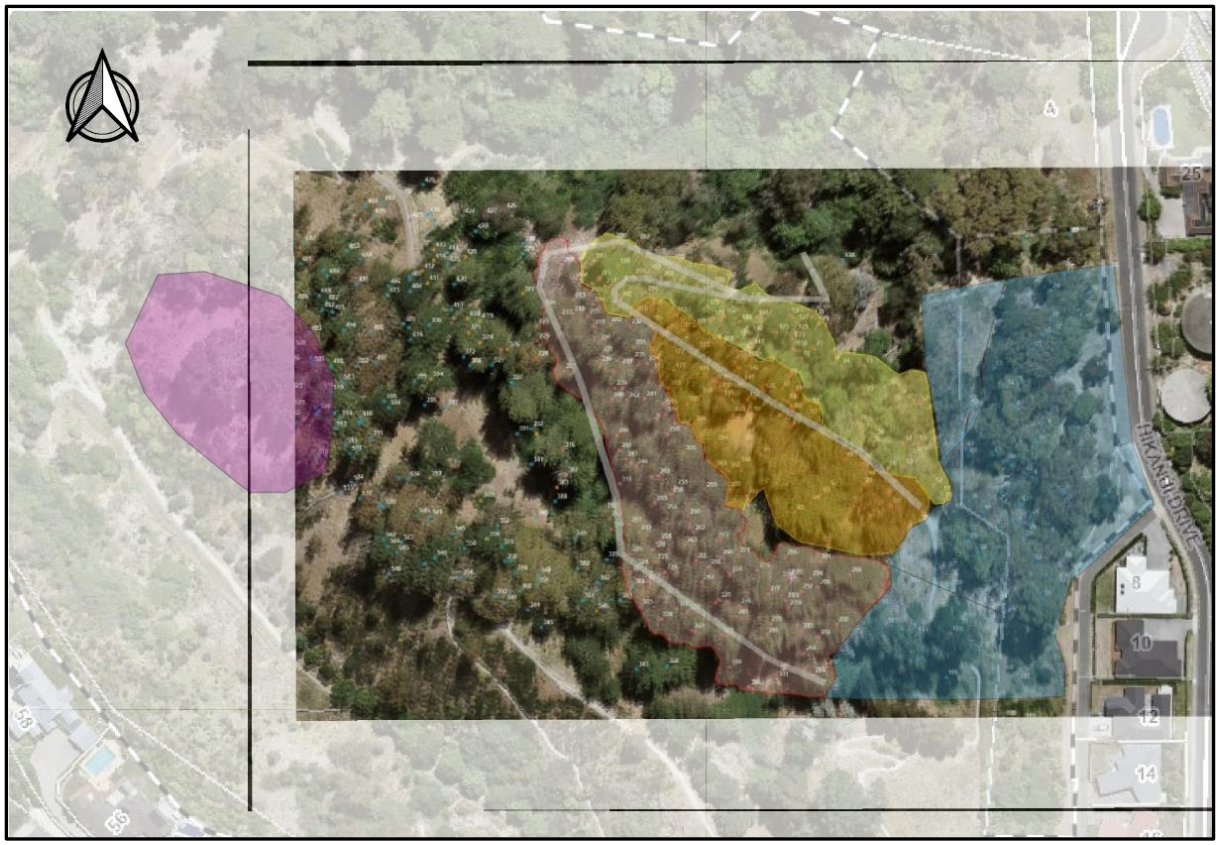

Figure 16 Tree management zones extended to include V21/245 -purple shading (note the site is slightly incorrectly located in the DP overlay).

The issues with the trees have been thoroughly discussed in previous sections and in previous reports both from an archaeological perspective and arboriculture stance (Campbell 2010, Carter 2021, Hill 2021, 2022). The increasing rate of failure over the past 6 – 12 months seen in the tree stock has further reiterated that a 'do nothing' stance is not tenable from either an archaeological or public safety perspective. Two management options have been considered:

1/ partial or staged removal and height reduction of exotic trees over a 5 – 10 year period to reduce the risks of imminent failures and public safety;

2/ complete removal of exotic trees within one 'felling event'.

Exotic trees in this context are pine, eucalypt and macrocarpa that dominate the assemblage, but other exotic species may be included if they are identified within the zones considered. This plan does not extend to exotic trees outside these very specific and defined areas.

Both option 1 and 2 come with advantages and disadvantages that have undergone considerable scrutiny. The main points can be summarized as:

- CANOPY INTERCEPT OF RAIN, WIND AND SUN:

Due to the unstable nature of the slopes there are concerns that removal of the trees en-masse will exacerbate the existing instability issues and add or generate further erosion both on the slopes and on the pā interior. To address this the canopy intercept of the feasibly remaining trees for a staged felling was modelled. This demonstrated that the remnant intercept value would be negligible in terms of mitigating erosion due to increased exposure to rain (Hill 2022). Further, many of the trees are showing signs of stress and weakness, thus whether many of them would survive the height reduction treatment is doubtful (Hill pers comm).

- ROOT STABILISATION OF SLOPES

At present the trees may be aiding slope stability through their root systems. However, the macrocarpa trees in particular have relatively shallow root systems in this area which are not aiding in slope stabilisation. Even once felled the root systems are expected to continue to hold the ground for some time whilst regenerating vegetation establishes (Hill pers comm). It is evident that even with the trees, the western slope is currently mobile. There is some evidence that entire trees are 'sliding' as the slope moves (Hill pers comm). Over the past 6 – 12 months several trees have failed, destabilizing and forcing the removal of adjacent trees affected by the fall impact. Thus, it is evident that the standing tree stock is in a state of decline that is increasingly exacerbating the slope instability.

- EASE OF FELLING AND EXTRACTION

Felling and extracting trees from the pā site and surrounding slopes will be highly complex as both the felling process and extraction machinery risk causing damage. Measures can be taken such as corduroy (protecting the ground surface by using fallen debris or mats) to reduce impact damage but this requires careful planning, resourcing and will involve complete closure of areas to the public during works. Achieving this successfully will be much easier to plan and manage if done 'en-masse' rather than piecemeal.

- RISKS FROM MACHINERY

The felling, extraction and any on-site processing machinery all risk causing damage with every entry into the sensitive areas and all movement through those areas. The less often the machinery is required on site the less the risk of damage.

- RISKS OF ONGOING FAILURES

Although it is possible to identify trees that are at imminent risk of failure based on visible indicators and prioritize those for removal, it has also become evident over the past 6 – 12 months that trees not exhibiting obvious signs of weakness or stress can fail unexpectedly. Therefore, whilst removing the most 'at-risk' trees is theoretically sound, it may not meaningfully mitigate the risk of unexpected failure. With each failure comes a need to fell, process and extract the stems of both the failed tree and those compromised by the failure.

- AESTHETICS

Retaining some mature trees, albeit height reduced will likely be more aesthetically pleasing in the short term and will be less of a significant visual change than felling én-masse'. Similarly, removing felled stems and branches will result in a 'tidier' environment than leaving the stems and branches in-situ. However, not all the height reduced trees will likely survive. The felling machinery and felling process, repeatedly occurring will damage ground surfaces and crush regenerating vegetation within the operational fall zones with every planned or unplanned felling episode. Extracting stems is often the most damaging part of the felling process, resulting in surface scuffing and gouging. Stems and other material left in-situ will rot, provide nutrients and habitat to regenerating flora and fauna, and is likely to be overgrown and rendered 'invisible' relatively quickly. Addressing other issues such as track erosion on the interior cannot commence until all the trees are removed. Staggered felling would delay addressing these increasingly urgent issues.

- COSTS

Multiple felling events are likely to be more expensive than én-masse' felling due to: repeated visits, difficulties of access around trees to stay and trees to go, cost increases over time. Multiple felling events will be more difficult to budget for and therefore may contribute to potential risks of 'failure' from a management perspective.

VISITOR EXPERIENCE

Hikanui Pā is an integral and valued, albeit often poorly understood, feature of the Tainui Reserve and wider Heretaunga landscape. At present the visitor experience lacks any meaningful formal recognition of the pā, any education, information or any sense of place. Whilst many in the user community are undoubtably aware of the pā, its significance and are passionate about its protection; many others may see the pā simply as a space through which they travel in order to access other areas of the Reserve.

This passion for Hikanui Pā in particular has lead to three primary issues being identified:

1. Conflict between user groups
2. Inappropriate activity or behaviour
3. Hikanui Pā 'experience'

These issues are inter-related and have undergone considerable scrutiny. The main points can be summarized as:

- HIKANUI PĀ - DESTINATION OR CORRIDOR?

The current track alignment runs through from the upper Hikanui Drive entrance, through the 'kissing gates', through the length of the pā and then meanders down the end of the spur to connect with the rest of the track network. This has resulted in Hikanui Pā becoming a corridor space. As such informal short cuts and alternative tracks have been formed over time, with many of these in archaeologically sensitive areas. The lack of any clear signage or information to identify the area as a pā site and to educate Reserve users has exacerbated this situation. The through track in its current form and alignment places considerable pressure from foot traffic and occasional cyclists on the exposed surface and continues a process of slow erosion and wear, particularly on the bank area and north-western end. Most of this traffic is users accessing the wider Reserve rather

than visiting Hikanui Pā itself. Adjusting the track network such that Hikanui Pā becomes a destination rather than a corridor would significantly reduce the casual user impact. Concurrently it may increase the destination visitor user base as Hikanui Pā becomes better recognized and understood in its archaeological and cultural context.

- INAPPROPRIATE ACTIVITY & BEHAVIOURS

At present Hikanui Pā is travelled through by diverse group of Reserve users including walkers and runners, both with and without dogs; and despite being a pedestrian only track occasionally also cyclists (FOLKL Report data 2021). It is understood that periodically Hikanui Pā is visited by school children, but rarely is it visited or used more formally for cultural events or gatherings. Although there are no 'picnic' areas, there are informal seats (log arrangement). There is currently no information or guidance around the internal features of the pā – pits and terraces, nor any information guiding appropriate behaviour in and around those features.

As an urban pā site Hikanui is currently under-recognised and under-used for both educational and cultural activities. Archaeologically, lack of understanding and information is contributing to the slow degradation of features due to uncontrolled movement through sensitive areas. This is evidenced by Thorne & Sutherland being unable to relocate several features previously recorded by Pishief. Similarly, cycling through the pā space is adding to the erosion and wear of near-surface features.

- BOUNDARIES & TRANSITION POINTS

Placing lines around archaeological sites is difficult at best and for many reasons both inappropriate and undesirable as archaeological sites tend to form part of a wider landscape and should not be viewed in isolation. However, to manage archaeological spaces within local government frameworks - 'Te Ao Pākeha' - we often do need to place lines on paper. In Te Āo Māori too there is a need to recognize crossing of boundaries and transition between spaces. Particularly in this case between the wahi noa and wahi tapu realms of Hikanui Pā. Improved visual cues and information around both the Te Ao Pākeha governance boundaries and Te Ao Māori transition points could greatly enhance the visitor experience and improve recognition and understanding of the site. Archaeologically, this clearer understanding of the spaces could aid in ensuring that

activities and management of those spaces are appropriate to the long-term preservation and protection of the archaeological site, and by extension the wider archaeological and cultural landscape.

- PROTECTING THE PHYSICAL SPACE (ARCHAEOLOGY)

The results of the two main ground surveys undertaken of both Hikanui Pā and terraces V21/245 demonstrate that surface degradation of features has occurred since the mid-1980s, to such an extent that some features may no longer be visible at surface level. Managing and protecting the space will require the management of both the current and future vegetation, managing user behaviour and potentially restricting or excluding access to more sensitive areas of the site.

LONG-TERM ASPIRATIONS

While there are several issues that require addressing in the short term these need to transition into long-term solutions for the sustainable conservation and management of Hikanui Pā and V21/245. Establishing a long-term vision for Hikanui Pā is fundamental to implementing strategies and solutions that can deliver not only in terms of archaeology but also cultural aspirations and community expectations.

- WHAT IS THE LONG-TERM VISION FOR HIKANUI PĀ?

Hikanui Pā is increasingly being recognized by the wider community, alongside mana whenua for the tāonga it is. Whilst there is much that remains unclear about the history of the pā it is eminently clear that the archaeological management of this site must be built upon a long-term vision. During consultation with mana whenua one fundamental desire for Hikanui Pā seemed to express this vision in a manner that could potentially be embraced by all Reserve users: '*to restore the pre-1840s … mana… and allow the site to age with dignity'*.

Restoration of the pre-1840s mana refers in part to the revelation that Tainui Reserve may be a remnant seed-bank – a time capsule – for the pre-1840s forest vegetation that once clothed the wider Te Mata……. Te Mata te Tipuna area. In part it also refers to the cultural significance of Hikanui Pā and all its associated narrative from the pre-1840s era.

Allowing the site to age with dignity reflects a desire to see nature allowed to take its course without significant intervention beyond the immediate and sustained actions

required from an archaeological stance. This is not to exclude actions that will enhance the aesthetic, cultural and archaeological values of Hikanui Pā, but rather that those actions need to be considered in the light of aging with dignity.

Preservation, conservation and management of archaeological sites is made easier with the understanding and commitment of the community. For example, access needs to be balanced against damage risks; and damage risks against education and experience. Therefore, the long-term vision for Hikanui Pā needs to primarily address the archaeological management and conservation in the long term, whilst as far as possible enhancing and improving the visitor experience now and in the future.

- LONG-TERM MANAGEMENT RISKS

One of the greatest risks of any long-term plan or vision is that it ultimately fails due to cost, lack of knowledge, poorly researched decisions, and waning enthusiasm. Including consideration of these and any other later identified risk factors into the long-term vision, as well as the more immediate actions will help to ensure the long-term success. Therefore, it is imperative that choices around tree management strategies, tracking routes and surfaces or construction methods, revegetation and regeneration, aesthetics and other enhancements; are all made under expert guidance and are chosen for their overall benefits as well as for their long-term success potential.

OPTIONS & RECOMENDATIONS

The options and recommendations for the long term conservation and management of Hikanui Pā and V21/245 within a Concept & Management Plan framework are presented in this section. These options and recommendations are made taking into consideration the advice from independent specialists and consultants including mana whenua, arboreaculturists, landscape architects and HNZPT.

TREE MANAGEMENT

The options and recommendations for tree management are based largely on the reports and advice from Richie Hill (Paper Street Ltd) and are presented under the three zones identified and used by Hill in his two reports (2021, 2022), and additionally the two further zones included in the scope of this document.

All five zones essentially have the same two tree management options:

1/ partial or staged removal of exotics (predominantly pine, eucalypt, macrocarpa) including height reduction of remaining trees to help counter wind exposure risks;

2/ 'en-masse' removal of all exotics (predominantly pine, eucalypt, macrocarpa) in concentrated felling events.

Similarly all five zones have the same three stem treatment options:

1/ extraction (ground, line or air options)

2/ in-situ processing (chipping)

3/ leave to rot

	PĀ INTERIOR
Recommended tree management	En-masse removal of all exotics (Ca. 70 trees: Hill 2022 p 4) Removal of all natives that pose a long term risk to the archaeological integrity of the site
Comments	While this is an extreme approach and carries risks such as increased erosion of surface features these risks can be predicted and better pro-actively managed than the risks associated with staged or partial felling. It is recognized that until appropriate vegetation re-establishes the interim porotection measures are likely to be aesthetically poor. However, these are expected to be short term visual effects that are outweighed by a net longer term gain. Managing the potential damage caused by felling machinery operating on the Pā interior and implementing strategies that will reduce these risks will be more effective if done as one event. Implementing other required remediation actions such as track improvements and revegetation cannot easily be undertaken if there is a requirement to fell and process trees across a number of years. The felling process will be subject to a HNZPT Archaeological Authority which will require a detailed felling plan to be submitted and approved to ensure the archaeological risks are being appropriately managed. Ongoing management will include ensuring that native species with the potential to grow to height or have invasive rootballs are also removed while small enough to not require specialist felling.
Recommended stem management	Extraction via non-ground-based method or onsite processing (chipping)
Comments	While leaving to rot is possibly the least archaeologically risky action this would not be appropriate from a public safety or visitor experience perspective. There are several potential methods of managing stems that can mitigate or avoid fall and extraction damage. These include use of 'lines' or heli-lifting. Extraction could be avoided or mitigated by on-site processing (chipping). Options could include heli-lifting the processing equipment onto the site.

	It may be desireable to leave selected stems as 'high stumps' to act as visual markers, although these would eventually rot and fail. It has been suggested that some of the stems may be used for carving of pou or other tāonga that may be returned to the site for inclusion in the final design. Height of stumps left in general would be determined by other factors such as final design and public safety. Archaeologically the stump height in this environment is not a factor of concern. It is recommended that these options are thoroughly explored with potential contractors to find the most effective and efficient method. Noting that archaeological management and protection of the fragile surfaces must remain the paramount consideration.
Recommended revegetation management	Low growing, shallow rooted ground cover species selected from a list of archaeologically 'approved' species for sensitive locations (Jones 2007 provides species lists and guidance) Species that can be established via seeding onto ground surface or starter medium such as biocoir or hydro-seeding. Planting of individuals is not recommended due to the ground disturbance that we are attempting to avoid.
Comments	Low maintenance species that minimize the ongoing management requirements to maintain an appropriate ground cover. Species that will cope with the periodically harsh conditions once the tree cover has been removed. Nurse species leading to longer term species ground cover options should be explored if considered appropriate. Consider trialling potential species on currently exposed surfaces during Management Plan Review process.

	WESTERN SLOPE
Recommended tree management	En-masse removal of all exotics (ca. 107 trees, Hill 2022 p7)
Comments	While this is an extreme approach and carries risks such as increased erosion of already unstable slopes these risks can be predicted and better pro-actively managed than the risks associated with staged or partial felling. It is recognized that until appropriate vegetation re-establishes the interim protection measures are likely to be aesthetically poor. However, these are expected to be short term visual effects that are outweighed by a net longer term gain. Photographs taken over the past 6 – 12 months demonstrate that colonising native species rapidly regenerate in areas where trees have recently been removed.

	If trees were to be removed in a staged manner, much of this regenerating vegetation would be damaged in subsequent felling events. Managing the potential damage caused by felling machinery operating and implementing strategies that will reduce these risks will be more effective if done as one event. The felling process will be subject to a HNZPT Archaeological Authority which will require a detailed felling plan to be submitted and approved to ensure the archaeological risks are being appropriately managed. Ongoing management will include ensuring that native species with the potential to grow to height or have invasive rootballs are also removed while small enough to not require specialist felling.
Recommended stem management	Rot in-situ
Comments	It is highly recommended that as far as possible the stems and associated felling debri be left to rot in-situ. Leaving this material completely removes risks associated with extraction and minimizes the amount of machinery required. Leaving the material on the ground provides a physical buffer against weather thus helping to reduce the erosion impact of rain, whilst providing the damp, sheltered environment required for regenerating species to establish. Aesthetically this will look untidy initially but it is expected that the rate of regeneration by colony species will rapidly obscure and soften the untidy visual effects. From an ecological perspective the rotting logs will support invertebrates, encouraging birds and thus enhancing the overall visitor experience. Understanding the past environment via the flora and fauna is a significant factor in understanding the archaeological site and landscape. Seeking guidance from a forest ecologist to better understand the ecological benefits of leaving the stems and slash in-situ is recommended, along with adressing potential public safety concerns that may arise relating to stems becoming dislodged. This may require some form of fence 'trap' at the base of the slope to catch any slash or stems that do move.
Recommended revegetation management	Active management of wilding exotics to remove seedlings will be required. Natural regeneration of colonizing species seems likely to be successful with minimal intervention. Longer term regeneration of pre-1840s species that are tolerant of present day conditions may require minor intervention such as seed spread and watering during establishment.

	Regenerating species should be monitored to ensure height and form at maturity can be supported by the slope at the specific location, and not pose archaeological risks in the future. Problematic plants could potentially be relocated to a more suitable location within the wider Reserve.
Comments	Individual plantings are not recommended without archaeological consultation and should only be in response to a specific need such as to enhance regrowth by providing rapid -growth shade species.

	NORTHERN SLOPE
Recommended tree management	Selective felling of most at-risk trees. Height reduction of selected trees as appropriate. Ring-barking or other method to advance natural failure rates of unsuitable species. (ca. 75 trees, Hill 2022 p7)
Comments	This slope is extremely steep and will be very challenging to fell effectively. The surviving archaeological potential on this slope is currently considered low, with no identified features or materials (midden exposures etc) to date. Therefore a more low-key intervention can be managed in this area. The greatest risks are likely to be associated with the pedestrian track in this area and the ongoing risks of un-expected failures
Recommended stem management	Rot in-situ
Comments	It is highly recommended that as far as possible the stems and associated felling debri be left to rot in-situ. Leaving this material completely removes risks associated with extraction and minimizes the amount of machinery required. Leaving the material on the ground provides a physical buffer against weather thus helping to reduce the erosion impact of rain, whilst providing the damp, sheltered environment required for regenerating species to establish. Aesthetically this will look untidy initially but will be on a much 'lighter' scale than on the western slope. It is expected that the rate of regeneration by colony species will rapidly obscure and soften the untidy visual effects. From an ecological perspective the rotting logs will

	support invertebrates, encouraging birds and thus enhancing the overall visitor experience. Understanding the past environment via the flora and fauna is a significant factor in understanding the archaeological site and landscape. Seeking guidance from a forest ecologist to better understand the ecological benefits of leaving the stems and slash in-situ is recommended, along with adressing potential public safety concerns that may arise relating to stems becoming dislodged.
Recommended revegetation management	Active management of wilding exotics to remove seedlings will be required. Natural regeneration of colonizing species seems likely to be successful with minimal intervention. Longer term regeneration of pre-1840s species that are tolerant of present day conditions may require minor intervention (seed spread). Regenerating species should be monitored to ensure height and form at maturity can be supported by the slope at the specific location, and not pose archaeological risks in the future
Comments	Individual plantings are not recommended without archaeological consultation and should only be in response to a specific need such as to enhance regrowh by providing rapid shade species.

	HIKANUI DRIVE TO KISSING GATE
Recommended tree management	Selective felling of most at risk trees. Selective height reduction as appropriate. Many of the eucalypts are showing signs of stress and should be closely monitored for deterioration that may lead to sudden failure. Controlled felling or height reduction to reduce the risks of damage to currently unrecorded features would be recommended (number of trees not currently available).
Comments	Trees in this area pose less of a direct risk to the identified archaeological features. The greatest risk is potentially uncontrolled fall towards Hikanui Pā that may result in impact damage to the bank and ditch. Such trees should be felled or height reduced to a level that the pā is beyond the fall zone.
Recommended stem management	Rot in-situ / on site processng
Comments	These stems could potentially be accessed from the road by crane. However, as with previous zones, a rot in-situ approach may better facilitate more rapid regeneration and re-colonization of native flora and fauna whilst eliminating potential risks associated with extraction.

	Leaving the material on the ground provides a physical buffer against weather thus helping to reduce the erosion impact of rain, whilst providing the damp, sheltered environment required for regenerating species to establish. Aesthetically this will look untidy initially but it is expected that the rate of regeneration by colony species will rapidly obscure and soften the untidy visual effects. From an ecological perspective the rotting logs will support invertebrates, encouraging birds and thus enhancing the overall visitor experience. Understanding the past environment via the flora and fauna is a significant factor in understanding the archaeological site and landscape. Seeking guidance from a forest ecologist to better understand the ecological benefits of leaving the stems and slash in-situ is recommended, along with adressing potential public safety concerns that may arise relating to stems becoming dislodged.
Recommended revegetation management	Active management of wilding exotics to remove seedlings will be required. Natural regeneration of colonizing species seems likely to be successful with minimal intervention. Longer term regeneration of pre-1840s species that are tolerant of present day conditions may require minor intervention seed spread and establishment support. Regenerating species should be monitored to ensure height and form at maturity can be supported by the slope at the specific location, and not pose archaeological risks in the future
Comments	Individual plantings are not recommended without archaeological consultation and should only be in response to a specific need such as to enhance regrowh by providing rapid shade species.

	V21/245 – TERRACES
Recommended tree management	A single large macraocarpa is the primary tree of concern to this site. At present it is considered to be in stable condition and the arborists recommendation is to leave it and monitor it and surrounding trees for signs of stress or failure.
Comments	Although this tree's roots are potentially causing damage to the terrace it is not at imminent risk of failure and appears to be in good health. Attempting to fell or height reduce this tree is likely to create more problems than it solves.

	A monitor and respond if necessary approach is recommended for now.
Recommended stem management	Rot in-situ / on site processing should it be required
Comments	As with previous zones, a rot in-situ approach will better facilitate more rapid regeneration and re-colonization of native flora and fauna whilst eliinating potential risks associated with extraction. Leaving the material on the ground provides a physical buffer against weather thus helping to reduce the erosion impact of rain, whilst providing the damp, sheltered environment required for regenerating species to establish.
Recommended revegetation management	Active management of wilding exotics to remove seedlings will be required. Natural regeneration of colonizing species seems likely to be successful with minimal intervention. Longer term regeneration of pre-1840s species that are tolerant of present day conditions may require minor intervention (seed spread). Regenerating species should be monitored to ensure height and form at maturity can be supported by the slope at the specific location, and not pose archaeological risks in the future
Comments	Management of wilding exotics is necessary, encouraging the existing grass cover, avoiding direct planting within 20 m.

EROSION

Currently there are several types of erosion actively affecting Hikanui Pā in particular. The first is associated with user behaviour and the nature of the existing tracks. The bare dirt surface offers no protection to potential fragile subsurface archaeology such as hearths. In several areas fire cracked stone, typically asssociated with hearths is visibly eroding through the track surface. In other areas informal tracks are causing instability and surface erosion. This damage can be adrressed through an improved track network and treatment that will protect and allow the existing exposed suraces to 'heal', by adressing inappropriate user behaviour such as cycling on the pedestrian only tracks, and pedestrians diverting to informal shortcuts. Active support of appropriate groundcover species will further improve the situation.

The second form of erosion is associated with hillslope instability, this is particularly evident on the western slope. This appears to be exacerbated by the increasing failure and uprooting of existing large trees. Leaving these trees with their full weight is not currently stopping this erosion and may be adding to it. As trees fail and leave gaps further unmitgated erosion is being caused by the increased exposure to rainfall. The proposed removal of the trees may further exacerbate this. However, it will also provide an opportunity to implement erosion control measures as part of the wider response and management of the archaeological sites. Identification of areas most likely to suffer from instability, and the implentation of pre-emptive control strategies such as bio-coir and hydroseeding, along with localized use of geogrids where greater control is deemed necessary will help to mitigate the potential increased erosion risks. It is highly recommended that experts in this field are consulted and aid in developing a pre-emptive erosion control plan in advance of felling.

VISITOR EXPERIENCE

The actions required to address the current threats and risks to the archaeological integrity of Hikanui Pā will impact on the visitor experience. However, in adressing these issues there is a unique opportunity to significantly enhance and improve the current situation, with a clear vision towards a long-term sustainable strategy of management and conservation.

This section focusses on the three zones that are currently within the official track network: Hikanui Drive to kissing gates; Pā interior and V21/245. Aspects of visitor experience that are

adressed are: user conflicts, track routes, track surfaces, information and interaction, future-proofing and sustainability. Whilst a number of issues and concerns raised by community groups, mana whenua and HDC for example are not of direct archaeological concern, their potential solutions are. Therefore they are considered and included in this report.

HIKANUI DRIVE TO KISSING GATES

Roadside Access:

This section of track is the primary pedestrian access point to Hikanui Pā. It is recommended that this is formally recognized and enhanced as a gateway into the historic, heritage and cultural landscape of Tainui Reserve. At present there is little or no suitable parking for cars or buses. It is recommended that the road reserve and grassed area be converted to accomodate limited parking and a safe drop off / pick up space for buses and vans. Provision of this facility will make visiting Hikanui Pā safer and easier for mobililty impaired individuals, and school or other large groups without causing conflict with local residents over streetside parking. Archaeologically the risks involved in this are moderate to low as the area has already been modified by road, services and residential developments. An Archaeological Authority would still be required due to proximity to Hikanui Pā and potential for surviving archaeology to be encountered. Enhancing this area into a wider 'Gateway' concept could be managed under an Archaeological Authority subject to archaeological inputs throughout the design phase.

Pedestrian / cyclist conflict:

At present there is an area immediately to the north of the pedestrian track that is being used as an informal bike jump track, along with mountain-bikers accessing their downhill track from essentially the same entrance way. Whilst there are no identified archaeological features in this zone, proximity to Hikanui Pā means that uncontrolled digging is not an appropriate activity. Therefore it is recommended that the informal jump-track be de-commissioned and the space allowed to revegetate.

As there are no shared cycle and pedestrian tracks that can be directly accessed from this point it is recommended that a clear distinction and physical distancing between the legitimate mountain-bike track access route and the pedestrian track be established. It is

recommended that the primary access track to Hikanui Pā from Hikanui Drive be designated a no-cycle zone and an alternate cycle or shared access point be provided for the cycling community.

Track surface:

The current track is moderately undulating and rough, being a bare dirt track. In wet weather it is slippery and not ammenable to the mobility impaired. It is recommended that this section of track be improved to make it wider and more accessible. As there are no currently recorded archaeological features within this area, undertaking minor improvements to resurfacing the existing track using low-impact ground based methods, along with the installation of handrails or other assistance features could be managed under an Archaeological Authority. An improved and clearly fit for purpose track would help to reduce off-track movement of visitors seeking an easier, drier, less slippery route – activities that potentially pose greater archaeological risks.

Kissing Gates and Transition Point:

Whilst placing lines around archaeological sites is often not ideal, in this case there is a requirement from both Te Ao Māori and Te Ao Pākeha perspectives to identify a transition point between inside and outside the immediate Hikanui Pā environs; between wahi noa and wahi tapu. It has been identified by mana whenua that the location of the kissing gates would be an appropriate place to identify that transition from a cultural perspective. From an archaeological perspective the kissing gates (+/- 5 m) are set sufficiently far back from the ditch and bank and other identified features to provide an effective buffer for management purposes.

It is recommended that the kissing gates be replaced with a visual indicator that clearly advises visitors that they are about to enter the achaeological space and that they are transitioning between wahi noa and wahi tapu from a Te Ao Māori perspective. It is anticipated that this could take the form of a light weight arch or gateway structure, or could be identified via pou. A design that requires limited earthworks such as postholes at this location could be managed under an Archaeological Authority subject to an archaeologists input into the earthworks requirements of the proposed design. Other design features to

support the Te Ao Māori requirements such as a source of reticulated water for cleansing on departure could be explored if low impact designs can be produced.

Vegetation

As previously recommended there is no requirement for intensive management of the exotic, predominantly eucalypt trees in this zone. However, some are recommended to be felled and others will require controlled felling as part of an on-going management plan. Currrently there are areas of deliberate planting undertaken by HDC in this wider zone. Although this area is outside the main pā environs it remains an area of moderate to high risk for potential unrecorded features. Therefore it is recommended that natural and 'enhanced' natural revegetation be allowed to occur through this area. Noting that regenerating native species should be considered for removal if they have the potential to create problems in future due to height and form.

In order to ensure the integrity and long-term success of the track surface it may be desireable to actively plant or seed specific species along the track corridor. If this requires digging for planting this activity should be included in the activities covered by the relevant Archaeological Authority.

Long-Term Management

It is anticipated that unless currently unrecorded archaeology is encountered during the initial enhancement activities, most ongoing management could occur under an Accidental Discovery Protocol. On-going management to include removal of wilding or undesirable trees by non-invasive methods, replacement of posts or pou in the same locations, track maintenance and repairs etc. If trees that have the potential to impact Hikanui Pā are sufficiently height reduced or felled as part of the initial recommendations there should be limited residual archaeological risk.

HIKANUI PĀ INTERIOR

This zone extends from the kissing gates to the northeastern extent of Hikanui Pā and includes all the features previously identified by Pishief (1985 SRF) and Thorne & Sutherland (2010). This is the zone that Reserve users and community most associate with 'the pā'. It is

the zone that requires the greatest and most confronting remediation but also has the greatest potential to be transformed into a space of mana, dignity, tranquility and beauty as befits its status in Te Ao Māori and Te Ao Pākeha. It is within this space that the vision expressed by mana whenua must be demonstrably embraced*: 'to restore the pre-1840s....mana.... and allow the site to age with dignity.'*

Hikanui Pā - destination

At present the track layout encourages Reserve users to treat the Pā interior as a corridor with limited recognition of the significance of the space through which they are travelling. This has impacts on the mana of the space as there is little understanding of the cultural and archaeological values of the pā, resulting in behaviours that are archaeologically and culturally inapproriate. This includes informal track creation affecting sensitive areas of the site, unauthorised movement of logs for seating and general wear on the ground surface and the vegetation cover.

It is recommended that the track section leading down the ridge at the northeastern end of the pā be de-commissioned such that access up or down that section of track is no longer possible. This section of track will require stabilzation via vegetation and potentially retaining walls as part of the decommissioning process. Expert advice on how best to achieve this should be sought. That short section of track should be replaced with a track that deviates at the approximate kissing gates area to re-join the main track network on the northern slope side. Thus, those entering Tainui Reserve from Hikanui Drive can decide at that identified and formalized transition point if they wish to visit the pā or if they wish to continue on the wider track network. Reducing casual through traffic, along with increasing visitor awareness of the space they are choosing to enter should help to reduce the general pressure on the pā interior as well as reducing un-informed inappropriate behaviour. It is recommended that the Hikanui Pā interior is designated as a no-cycle zone. It is also recommended that the pā interior is designated a no-dog zone. This is for reasons including cultural appropriateness, public safety (children, elderly), wear and damage to vegetation and underlying features, and risks of digging (hunting rabbits etc).

Visitor movement

Currently there is a single main dirt track that cuts across the bank and ditch before transitioning through the pā interior and dropping down into the gully below. There are also several informal tracks around the perimeter of the interior and along the spur crest. Access is currently unrestricted in terms of keeping pedestrians to the main path and off the features. One measure of the success of the conservation and management of Hikanui Pā in the future is reasonably to expect an increase in visitor numbers as visitor experience is enhanced and mana restored. Therefore planning for increased visitor pressure is essential.

It is recommended that the interior track alignment be reconsidered to provide sufficient space for relatively large groups – school parties for example – to experience the pā and visually connect with a representative selection of the surface visible features in a non-invasive and low impact manner. Options considered include:

1. Straight up and back track along current alignment;
2. Loop track that avoids directly impacting surface visible features;
3. Existing alignment up and back with a focal or gathering area at the northwestern end and scope for 'sidings'.

Given the archaeologically sensitive nature of the space, track construction methods and track routes are inextricably linked and in some cases are mutually exclusive. Option 3 is recommended as being the most functional and practical, with scope to meet other goals.

Hikanui Pā - cultural & archaelogical landscape

Hikanui Pā did not exist within a vacuum. It was, and is, part of a rich landscape of occupation and activity. At present the vegetation obscures the views from the pā out across the Heretaunga Plains, towards the coast, towards Te Mata .. Te Mata te Tupuna. With the recommended felling and height reduction of the trees these view shafts will once again be opened up. Mana whenua have expressed a desire to have view shafts from Hikanui Pā to locations of significance identified and incorporated into the visitor experience. Pou or other visual markers might be incorporated into the experience such that from other sites within the landscape, Hikanui Pā can be identified via these view shafts. In a similar way, a desire to share information about Hikanui Pā and the wider landscape, including both the Māori

narratives and more recent European histories as relate to Hikanui Pā, Tainui Reserve and the wider area has been expressed.

It is recommended that the visitor experience be designed in such a way that these elements are incorporated. If methods can be adapted that do not require direct earthworks, or that minimise postholes, these would be favoured. Any postholes or pou installation would need to avoid the currently recognized surface features whilst recognizing that there is a high chance that subsurface materials or features such as hearth or midden will be encountered. Any activity that will involve earthworks such as pou installation or posts for signage will require an Archaeological Authority and should involve an archaeologist during design stages.

Track treatments

The current track through Hikanui Pā is ground-based and directly impacts the surface. Since Pishief's original recording of the site in 1985 there have been reports and observations of burnt stone, potentially from hearths, eroding through the track surface. Given the relatively exposed nature of the site (pre exotic trees) it is likely that there is minimal soil coverage of fragile features such as hearths. Therefore, from an archaeological perspective unprotected ground-based tracks as currently in use are inappropriate and require replacing.

Based on consultation with landscape architects (Rebecca Ryder & Sarah Rowan: BoffaMiskell), along with looking to other examples of tracks through archaeologically sensitive areas and current views on best practice, three options emerged for consideration. These were:

- Groundbased built up side profiles
- Groundbased with geogrid
- Above-ground cf. screw-pile boardwalk

All of these systems have been used successfully in archaeologically sensitive environments and all potentiallly have an acceptably low invasiveness for construction subject to specific system availability. However, not all these track treatments will lend themselves equally to the environment or to all the potential track routes and other considerations.

On the basis of consultation with HNZPT and the consideration of the relative pro's and con's of the different track treatment options it is recommended that the above ground system cf screwpile boardwalk be considered as the preferred option. This system provides the greatest flexibility for design of a track route and accomodating scope to extend across onto more sensitive areas of the site. By staying above ground there is no pressure on the surface and greater areas are available to be utilized as there is little direct footprint to consider. While there will be a requirement for some ongoing maintenence, this is likely considerably less than is involved in ensuring the long-term physical and aestheic integrity of either ground based option. Further, by creating an above ground functional surface interpretive features and furnishings can potentially be installed without the need for additional postholes or ground disturbance.

Of particular concern is the area of track that crosses the bank and ditch. Whilst decomissioning this approach entirely is an option, there are no readily apparent better alternatives, and it is likely that some users will continue to follow the old route regardless. This section of track will be challenging to apply either ground-based system to with any long term success, whereas the screwpile board walk (or potentially other floating walkway system) can easily traverse the incline. Raising the track off the ground also allows the currently exposed surface to heal.

A raised boardwalk system also opens options for improved access for mobility impaired visitors by alllowing manipulation of slope grade without impacting the ground surface. Thus improving the overall accessibility of Hikanui Pā to the wider community. Further, this system encourages users to stay on the designated path while allowing for strategically located viewing areas to access features and view shafts.

<u>Restoration of mana and status</u>

Integral to the restoration of mana and status to Hikanui Pā is to facilitate function and purpose. Mana whenua have expressed a desire for Hikanui Pā to become a space into which to welcome and greet visitors through pōwhiri. School parties are already being taken to the site and it is hoped that Hikanui Pā finds a greater place within the curriculum or list of 'places to take the kids for some fresh air and learning'. Improved parking or drop-off and

pick up zones, better track access and greater availability of information and visual cues around space and transition will greatly assist this.

'Furnishings' such as seating, picnic areas and shelters are features of many reserves and often feature within archaeological sites. In keeping with the 'age with dignity' aspiration it is recommended that such furnishings are kept to a minimum or excluded altogether. Noting again that any postholes or other associated earthworks would be subject to an Archaeological Authority approval.

RECORDED SITE V21/425

This terrace site has deteriorated since its initial recording and has proved difficult to relocate at all. The site in its current state exhibits only one of the two terraces originally recorded and has a mature macrocarpa tree growing immediately adjacent to it. This terrace likely represents a surviving remnant of the wider occupation landscape within which Hikanui Pā is located. It is recommended that the site is identified and some level of interpretive information provided. A short section of track improvement in the immediate area of this or future identified sites to reflect the track treatment at Hikanui Pā is recommended to a/ protect the ground surface within the 20 m buffer of the site; b/ to visually identify that the area is archaeological; c/ to provide a visual aesthetic and cultural connection with Hikanui Pā. It is likely that this site will be part of the view shafts included to and from Hikanui Pā. Any pou or other marker requiring earthworks will need to be included under an Archaeological Authority.

As with Hikanui Pā it is not recommended that 'furnishings' be installed at this location.

LONG-TERM ASPIRATIONS

This CMP primarily deals with issues and recommendations that require actioning in the immediate future and that will largely have been achieved within the 10 year life-time of the Havelock North Reserves Management Plan. However, ensuring the long term conservation and management of archaeological sites requires long-term visions. This requires that decisions made today are measured against their long-term suitability, sustainability and potential for ongoing success. The guiding aspiration for Hikanui Pā has been *'to restore the pre-1840s ….mana…. and allow the site to grow old with dignity'*.

Much of the work recommended is in the short-term highly intrusive and confronting, but with a long term end goal of ensuring the protection and preservation of Hikanui Pā within a setting that is appropriate to the history and mana of the site, and in a manner that is inclusive and welcoming to all. A management plan that relies on high maintenence design and systems is unlikely to be sustainable in the long term. Potentially the worst possible outcome would be that this process were being repeated in 20 years because of a failure to make sustainable decisions and commit to them now.

Therefore the following recommendations are made, taking into account the archaeological requirements and limitations:

- track alignments and treatments are based on long-term success and sustainable management beyond current policy
- revegetation 'design' in the pā interior area is low maintenance and not requiring regular intervention to succeed
- all the zones considered herein are actively and routinely managed to prevent the re-establishment of wilding exotics as will inevitably occur otherwise
- that regenerating native species are monitored and those that will potentially pose a risk as they mature are removed while possible to do so non-invasively, ideally to be transplanted elsewhere in the reserve
- that active involvement by community groups in managing and maintaining the space is encouraged
- that reviews are undertaken (suggested 2, 5 and 9 years) to track the success of the Concept and Management Plan and advise on any ammendments that may be required to restore a path to success or address unforeseen issues arising.

Whilst the recommendation of this CMP are primarily focussed on archaeological drivers and outcomes, it is important to recognize that other drivers also require consideration. Table 2 summarizes the recommendations made and how they relate to wider considerations.

Table 2 Recommendations made and how they relate to wider considerations.

Recommendation	ICOMOS New Zealand Charter for the Conservation of Places of Cultural Value	Heritage New Zealand Pouhere Taonga Act (HNZPTA) 2014	Resource Management Act 1991 (HDC District Plan)	Community attitudes and expectations	Mana Whenua Cultural Aspirations Report[10]
Felling of exotic trees from pā interior and removal / on-site processing of stems Pro-active management of identified erosion risks	1/ Purpose of Conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 24/ Risk mitigation	Action required under Part 3; Subpart 2	Part C: Sections 16 & 18	Wider Community: Mixed views	▪ Ensure that those who hold ancestral mana whenua over this site are involved in the process of decision-making relating to the preparation of a management plan for this site and the reinstatement of cultural markers and kōrero tuku iho. ▪ That a management plan be prepared that will make possible the timely removal of trees (wilding pines) from the Hikanui Pā, so as to ensure that the Pā site is protected from severe or minor disturbance caused by tree fall in a storm event. ▪ Following the removal of trees from this site, ensure that a plan is prepared to offer suitable protection to the surface of the Pā

[10] Thanks to Charles Ropitini for providing these summary points derived from the Mana Whenua Cultural Aspirations Report

Felling of exotic trees from western slope and stems rotting in-situ Pro-active management of identified erosion risks Facilitated indigenous regeneration	1/ Purpose of Conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 24/ Risk mitigation	Action required under Part 3; Subpart 2	Part C: Sections 16 & 18	Wider Community: Mixed views	site, in accordance with the policy recommendations created by DOC for the long-term care of archeological sites of this kind. Ensure that preferred vegetation cover on the sites is maintained in a way that protects the integrity of the site. ▪ Remove logs that have been placed within the Hikanui Pā site by members of the public who have acted without Council, Heritage New Zealand or mana whenua permission. ▪ Review the use of bikes within the Hikanui Pā site ▪ Review the use of dogs within the Hikanui Pā site ▪ Ensure that the creation of a management plan makes adequate provision for the future use of the Hikanui Pā related to educational and customary purposes (i.e., pōwhiri). ▪ There is no desire of Mana Whenua to reinstate a pā tūwatawata style restoration of Hikanui Pā. The archaeological features
Selective felling, height reduction and ringbarking exotic trees on northern slope, stems rotting in situ Facilitated indigenous regeneration	1/ Purpose of Conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage	Action required under Part 3; Subpart 2	Part C: Sections 16 & 18	Wider Community: Mixed views	

	5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 24/ Risk mitigation				are to be maintained without modern interpretation or reinstatement of palisaded features. ▪ There is a preference for low lying, shallow rooted, indigenous shrubs to line terraces giving definition to terrace lining without disturbing the archaeology.
Selective felling, height reduction and monitoring exotic trees on between Hikanui Drive and kissing gate, stems rotting in situ Facilitated natural regeneration	1/ Purpose of Conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 24/ Risk mitigation	Action required under Part 3; Subpart 2	Part C: Sections 16 & 18	Wider Community: Mixed views	

Monitoring and low intervention as required for macrocarpa at V21/245	1/ Purpose of Conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 24/ Risk mitigation	Action required under Part 3; Subpart 2 Action subject to S.42.	Part C: Sections 16 & 18	Wider Community: Mixed views	
Improved parking and accessibility between Hikanui Drive and kissing gates	1/ Purpose of conservation 3/ Indigenous cultural heritage 6/ Minimum intervention 8/ Use 24/ Risk mitigation	Activity subject to S. 42	Part C: Sections 16 & 18	Wider Community: no specific views to date	

Physical separation of mountain-bike access from pā access	2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 8/ Use 24/ Risk mitigation			Mountain-biker community: Seems supportive in feedback reviewed Wider Community: Seems supportive in feedback reviewed	
Decommissioning and relocation of jump-track "healing' of ground surface via regeneration of indigenous species	2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 8/ Use 24/ Risk mitigation	Action required under Part 3; Subpart 2	Part C: Sections 16 & 18	Mountain-bike community: Kids and their families against although provision of suitable alternative may resolve this. Wider community: Some very strongly in support but wider views not clearly expressed in feedback reviewed	
Formalization of transition point at kissing gates including facilitation of pōwhiri tikanga	1/ Purpose of conservation 2/ Understanding cultural heritage value 3/ Indigenous cultural heritage	Action subject to S.42		Wider Community: No specific feedback but general feel that pā requires greater recognition	

	5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 8/ Use 23/ Interpretation				
Above-ground cf screw-pile boardwalk track from kissing gates and short section in vicinity of V21/245	2/ Understanding cultural heritage values 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 8/ Use 18/ Preservation 24/ Risk mitigation	Action subject to S.42	Part C: Sections 16 & 18	Wider community: No specific views but general support of enhancing and protecting pā.	
'Lollipop' track within pā interior with scope for sidings, view points –	2/ Understanding cultural heritage values	Action subject to S.42	Part C: Sections 16 & 18	Wider community:	

restricted movement off-track Above-ground cf screw pile system	5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 8/ Use 18/ Preservation 23/ Interpretation 24/ Risk mitigation			No specific information but general support for enhancements and preservation	
De-commissioning of short portion of downhill section of track, replaced with new alignment	2/ Understanding cultural heritage values 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 8/ Use 18/ Preservation 23/ Interpretation 24/ Risk mitigation	Actions subject to S. 42	Part C: Sections 16 & 18	Wider community: No specific feedback	

Low maintenance, hardy groundcover for pā interior e.g moehlenbeckia – prioritizing protective qualities over aesthetics Regeneration of locally sourced / seed bank indigenous species on slopes and surrounding areas	2/ Understanding cultural heritage value 5/ Respect for surviving evidence and knowledge 6/ Minimum intervention 9/ Setting 18/ Preservation 23/ Interpretation 24/ Risk mitigation	Action required under Part 3; Subpart 2 Action subject to S. 42	Part C: Sections 16 & 18	Wider community: No specific feedback General impression of concern that all the big trees will go and the reserve will lose its wild and natural feel. Indigenous regeneration is expected to soften and ultimately enhance the effects of felling by increasing biodiversity with appropriate species	
	2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 8/ Use 9/ Setting	Action subject to S.42	Part C: Sections 16 & 18	Wider Community: Support and desire to learn and understand expressed in feedback reviewed	

	11/ Documentation and archiving 12/ Recording 23/ Interpretation				
Exclusion of dogs from pā interior Exclusion of recreational wheels from pā interior	2/ Understanding cultural heritage value 3/ Indigenous cultural heritage 5/ Respect for surviving evidence and knowledge 8/ Use	Action subject to S.42	Part C: Sections 16 & 18	Wider Community: Likely to be mixed reception based on views expressed more generally	

CONCLUSION AND RECOMENDATIONS

CONCLUDING STATEMENT

This Archaeological Concept and Management Plan for Hikanui Pā V21/171 and associated terraces V21/245 identifies key areas of management and recommends approaches to deal with those issues. It is recognized that the pā site is of immense importance to both mana whenua and other Reserve users, and that there are several issues that require resolving through the wider Reserves Management Plan that may have implications for the archaeological management of the sites. The recommendations made in this document are summarized in a visual format to aid understanding of the bigger picture, distilled down from the wealth of information presented in this document (Figures 17 & 18).

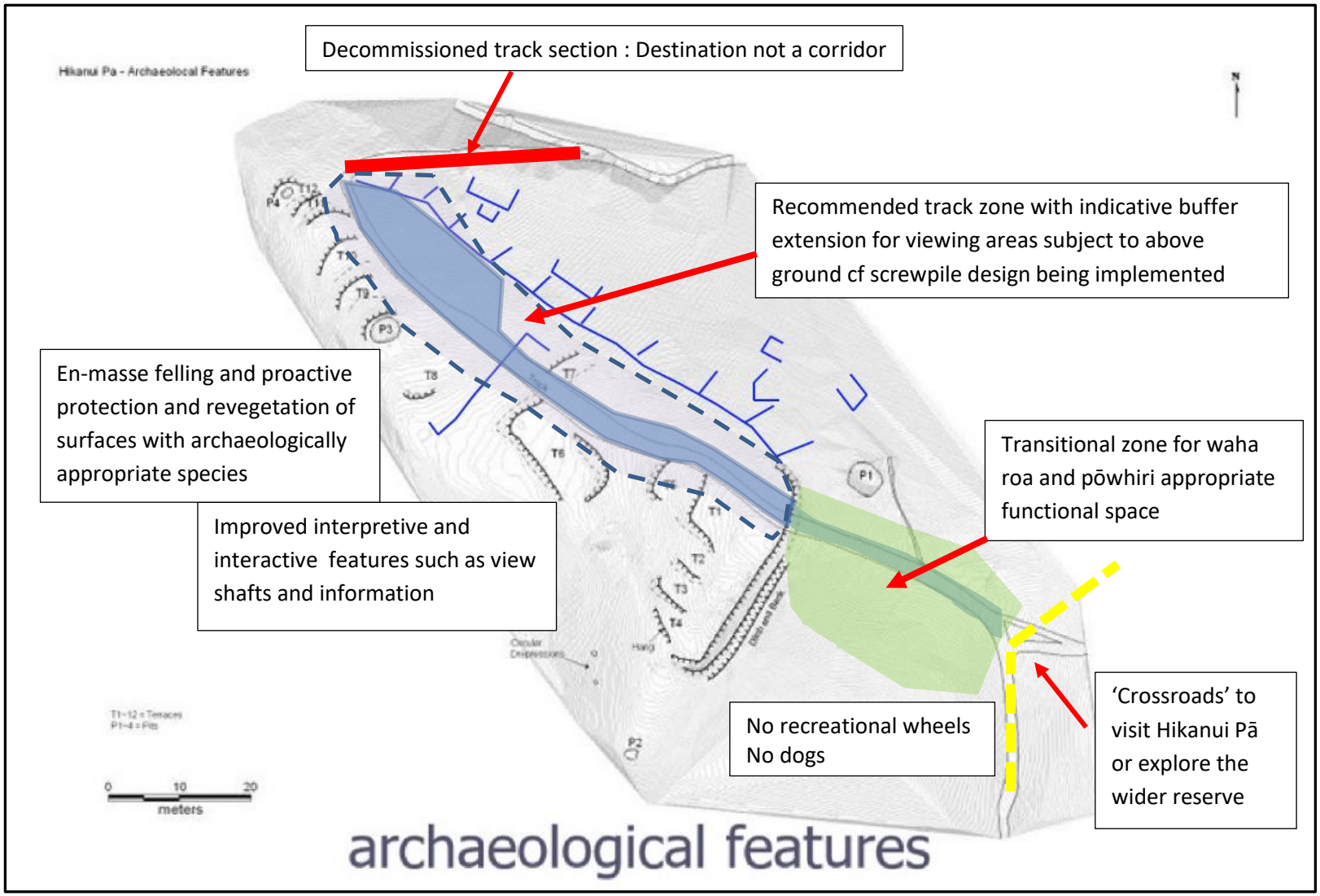

Figure 17 Visual representation of recommendations for Hikanui Pā interior (base image from Campbell 2010 presentation with Pishief 1985 additional features indicatively added).

Figure 18 Felling, revegetation wider area recommendations

Whilst this CMP outlines recommended actions and options to achieve management and conservation goals for the long-term protection of Hikanui Pā and V21/245 there remain steps that require actioning to facilitate them and complete the gathering of specialist inputs.

Key actions to be undertaken:

- Initiate a design process for Hikanui Pā interior, transition zone and Hikanui Drive entrance utilizing an above ground cf screw-pile boardwalk system[11] and considering appropriate ground cover species for pā interior in consultation with an archaeologist throughout the design process.
- Seek quotes and methodologies from multiple tree felling contractors for recommended felling and extraction, particularly for the pā interior and western slope in the first instance.
- Seek further expert inputs into safety concerns and ecological pros and cons for leaving stems and slash in-situ – noting that extraction is archaeologically as risky as felling and often more difficult to manage.
- Seek expert guidance on methods of mitigating and minimizing the expected erosion issues once the trees are felled.
- Seek expert guidance on how best to stabilize and decommission track section.
- Trial potential ground cover species on pā interior in exposed areas while other processes are being worked through.

All activities that carry a risk of physical ground disturbance within the areas considered herein or within 50 m of any future identified archaeological sites will require input and guidance from a suitably qualified archaeologist and in most cases will require an Archaeological Authority to be approved in advance of work commencing.

It is recommended that the measures outlined in this Concept and Management Plan are actioned as soon as possible. Many of these actions will need to be ready to enact in quick

[11] Whilst the screw-pile system is the preferred option, and is understood that it would work in this geology this requires verification from installers. If the screwpiles cannot be used then alternative above ground 'floating' walkway systems should be explored although such systems may limit the design potential on the pā interior and waharoa / pōwhiri areas, and may be less ammenable to mobility impaired accessibility.

succession, therefore it is recommended that all the key actions be initiated such that all the outstanding required information and expertise are available immediately on HDC approval to commence.

Currently recommended order of actions subject to approvals (HDC, HNZPT)

1. Identification of highest erosion risk areas post-felling
2. Procurement of required materials and expert provider for erosion control and felling
3. Felling of pā interior & western slope trees
4. Implementation of erosion management and mitigation measures
5. Preliminary establishment of ground cover species on pā interior and temporary cover on areas to be affected by track installation
6. Support to regenerating slope species including implementation of intensive weed management program
7. Installation of pā interior track and design features
8. Installation / completion of waha roa / pōwhiri area through to roadside gateway area

PHASING UNDER THE PROPOSED HAVELOCK NORTH RESERVE MANAGEMENT PLAN

1. Short-term (0-3 years):
   Actions recommended for the pā interior and western slope.
   Removal of the pump track.
   Note that several of these recommendations require actioning as immediately as possible.

2. Medium-term (4 – 7 years):
   Actions recommended for the road to 'kissing gate'.
   If tree health deteriorates this will increase the urgency of action in this zone.

3. Long-term (8-10 years):
   Actions recommended for the northern slope are largely long-term.
   Deteriorations in tree health or slope stability due to natural failures may result in higher prioritization of work.

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APPENDICES

THE HERITAGE NEW ZEALAND POUHERE TAONGA ACT 2014

The purpose of the HNZPTA is to promote the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand (HNZPTA section 3), which places emphasis on avoiding effects on heritage, including archaeological sites.

The HNZPTA provides blanket protection to all archaeological sites whether they are recorded or not. Protection and management of sites is managed by the archaeological authority process, administered by HNZPT. It is illegal to modify or destroy archaeological sites without an authority to do so from HNZPT.

The HNZPTA contains a consent (authority) process for any work affecting archaeological sites, where an archaeological site is defined as:

a. Any place in New Zealand including any building or structure (or part of a building or structure) that:

    i. was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where that wreck occurred before 1900; and

    ii. provides, or may provide through investigation by archaeological methods, evidence relating to the history of New Zealand (HNZPTA Section 6); and

b. Includes a site for which a declaration is made under Section 43(1) of the Act (such declarations are rare and usually pertain to important post-1900 remains with archaeological values).

Any person who intends to carry out work that may modify or destroy an archaeological site, or to investigate a site using invasive archaeological techniques, must first obtain an authority from Heritage NZ. The process applies to sites on land of all tenure including public, private and designated land. The HNZPTA contains penalties for unauthorised site damage or destruction. For places in which Māori have a particular historical interest, applications for an authority require records of appropriate tangata whenua consultation.

The archaeological authority process applies to all sites that fit the HNZPTA definition, regardless of whether:

- The site is recorded in the NZ Archaeological Association (NZAA) Site Recording Scheme or registered by Heritage NZ;
- The site only becomes known as a result of ground disturbance; and/or,
- The activity is permitted under a district or regional plan, or a resource or building consent has been granted.

Heritage NZ also maintains the List/Rārangi Korero (formerly the Register), which maintains a record of Historic Places, Historic Areas, Wahi Tapu, Wahi Tapu Areas and Wahi Tupuna. The List/Rārangi Korero can include archaeological sites. The purpose of The List/Rārangi Korero is to inform members of the public about such places and to assist with their protection under the RMA.

In considering any application for an authority, Heritage New Zealand Pouhere Taonga may grant fully, or in part, or decline any application. The Act allows for up to 2 months for the Trust to process an authority after the application has been formally lodged although, except in special cases, the time allowed is 20 working days. There is a 15-working-day appeal period if an authority application is granted or declined.

THE RESOURCE MANAGEMENT ACT 1991

The *Resource Management Act 1991* (RMA) provides guidelines and regulations for the sustainable management and protection of the natural and cultural environment. Section 6(f) of the RMA recognises 'historic heritage' as a matter of national significance, and identifies the need for protection of historic heritage from inappropriate subdivision, development and use.

The definition of 'historic heritage' (RMA s2) refers to those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, and includes historic sites, structures, places and areas, archaeological sites, and sites of significance to Māori.

HASTINGS DISTRICT COUNCIL DISTRICT PLAN

The operative and proposed Hastings District Council District Plan (HDCDP[12]) recognizes that heritage can be expressed through inherited assets that include, amongst others: archaeological sites and sites of significance to Tangata Whenua. It further recognizes that earthworks activities can compromise historic heritage and cultural heritage features including archaeological sites (Objective EM05; Policy EMP14[13]), and that any such activity is subject to HNZPTA 2014.

[12] https://eplan.hdc.govt.nz/eplan/
[13] https://eplan.hdc.govt.nz/eplan/

PROTECTED OBJECTS ACT 1975

The Protected Objects Act 1975 is administered by the Ministry for Culture and Heritage and regulates:

- the export of protected New Zealand objects;
- the illegal export and import of protected New Zealand and foreign objects;
- the sale, trade and ownership of taonga turutu.

There are nine categories of protected objects; of relevance to the reserve are taonga turutu (50+ year old objects related to Maori culture and society) and New Zealand archaeological objects (materials removed from a New Zealand archaeological site).
Any newly found taonga tuturu are in the first instance Crown owned unless and until a determination on ownership is made by the Maori Land Court. In the interim, the Ministry is legally responsible for recording, custody, facilitating claims for ownership and any conservation treatment for taonga tuturu. Any finds must be taken to the closest museum, which will notify the Ministry.

OTHER LEGISLATION

It must be noted that in the event that koiwi tangata (human remains) are identified that the relevant processes are enacted, including compliance with the Burials and Cremations Act 1964.

Further, whilst outside the remit of the author to discuss, expectations and requirements under both Te Tiriti o Waitangi (The Treaty of Waitangi) and any relevant Treaty Settlements must also be included in the on-going management of the Havelock Reserves.

ICOMOS NZ CHARTER

SITE RECORD FORMS V21/171 & V21/245