

CULTURAL IMPACT ASSESSMENT

FOR

**TE TUPU NGĀTAHI NORTH WEST PROJECT
(LOCAL AND STRATEGIC TRANSPORT NETWORK)**

PREPARED FOR

TE TUPU NGĀTAHI

DECEMBER 2022

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TE KAWERAU A MAKI



"Kawerau Iwi, Kawerau Mana, Kawerau Tangata"

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EXECUTIVE SUMMARY

The North West Project proposes to upgrade and develop new sections of the local and strategic transport network extending from Whenuapai through Westgate and Brigham Creek to Waimauku. A significant element of the project is the Alternative State Highway (ASH) from Brigham Creek to western Huapai. The project sits within and across an important cultural landscape at the crossroads between the Hikorangi, Waitemata, and Kaipara Valley takiwa. It is the northern part of Te Kawerau ā Maki's heartland and contains a number of significant cultural sites and resources from our most ancient traditions through to our major Treaty settlement redress. A total of 51 cultural sites and resources were identified across the wider project area. The project was assessed against these sites and resources resulting in the documenting of eight significant adverse effects, 15 minor adverse effects, three negligible adverse effects, one potential significant beneficial effect*, one minor beneficial effect*, and 25 neutral effects. Where adverse effects were identified offsets (or further mitigation) were suggested. The significant adverse effects relate to the removal of productive topsoil, impacts to fresh water (including the taniwha), impacts to the Kumeū River (including the taniwha), impacts to fish species, setting impacts to Nga Rau Pou ā Maki, impacts to Pukewhakatara, impacts to Wai paki i rape o Ruarangi, and impacts to the cultural landscape. There is particular concern regarding a strategy of supporting urban growth in a flood prone catchment that holds the most regionally significant topsoil in northern Auckland. Due to these sensitivities the iwi cannot support the ASH component of the project. Advice is provided on suggested limits and offsets, and recommendations are provided for the project overall.

PEPEHA

Ko Hikurangi te maunga

Ko ngā Rau Pou ā Maki ngā tohu whakahī

Ko te Wao Nui ā Tiriwa te ngahere

Ko te Manukanuka ā Hoturoa me te Waitematā ngā moana

Ko Waitākere te awa

Ko Tainui te waka

Ko Tawhiakiterangi te tupuna

Ko Te Kawerau ā Maki te iwi

Hikurangi is the mountain

The many posts of Maki (Waitākere Ranges peaks) are the markers

Te Wao nui ā Tiriwa is the forest

Manukau and Waitematā are the harbours

Waitākere is the river

Tainui is the canoe

Tawhiakiterangi is the person

Te Kawerau ā Maki is the tribe

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INTRODUCTION

1.0 Project Background

Te Kawerau Iwi Tiaki Trust ('the Trust') have been commissioned by Te Tupu Ngātahi (an alliance involving Waka Kotahi, Auckland Transport, BECA, AECOM, Bell Gully and Buddle Finlay) (hereafter the Client) to prepare a Cultural Impact Assessment (CIA) for proposed upgrades and new sections of the local and strategic transport network extending from Hobsonville/Whenuapai through Westgate and Brigham Creek to Kumeū, Taupaki and Waimauku. The proposed transport network project is known as the 'North West Project'.

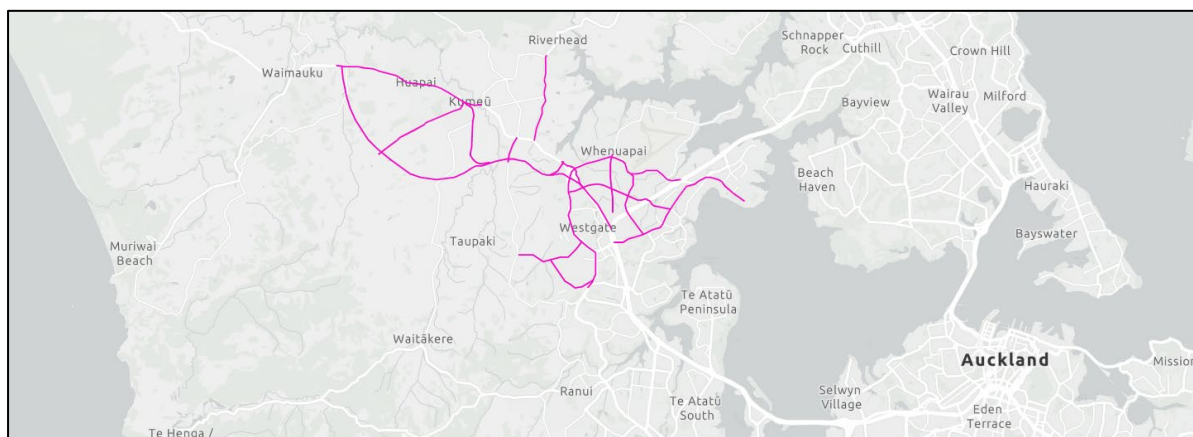


Figure 1: Plan showing Site regional context

The Client seeks to identify and protect the preferred transport network in Auckland's future growth areas. The wider strategy of Te Tupu Ngātahi is to support growth in housing and employment, to provide people with genuine travel choices, to address climate change by achieving transformative mode shift, and to address transport safety issues. For the North West Project the specific outcomes include an extensive walking and cycling network, 71km of bus lanes plus a rapid transit corridor to Kumeū-Huapai, safety upgrades, and state highway upgrades including an alternative route for State Highway 16. The network works will generally involve transport corridor widening/realignment, new corridors, bulk earthworks, bridge construction/stream crossings, stormwater management (e.g. ponds), vegetation removal/replanting, and installation of related infrastructure.

Specific to the 'strategic network' components of the North West Project are: the Alternative State Highway (ASH) route will include a new four-laned dual carriageway motorway and the upgrade of Brigham Creek Interchange; The SH16 main road (Main Rd) upgrade will include upgrading the existing corridor to a 24m wide urban corridor, including a 600m section of active mode only upgrade and realignment of Station Road to form a new signalised intersection with SH16; The development of a new rapid transit corridor (including the Regional Active Mode Corridor – RTC) and active mode corridor will be in one co-located corridor; The upgrade of Access Road (Access Rd) from a 20m width to a 30m four-lane cross-section with separated cycle lanes and footpaths on both sides of the corridor within the urban section and the north side within the rural section.

This CIA report has been prepared by the Trust as a legal entity of Te Kawerau ā Maki who are a mana whenua iwi of wider Tāmaki Makaurau (Auckland), but with particular lead interests in Hikurangi (West Auckland) and the Upper Waitematā Harbour. The purpose of this CIA report is to provide the Client and relevant statutory agencies with documentation of Te Kawerau ā Maki's cultural values, interests, and associations with the project area and its natural resources, and the potential impacts of the proposed project activities on these. This impact assessment also provides recommendations as to how to avoid, remedy or mitigate any potential cultural effects that arise from the project.

Te Kawerau ā Maki engagement in statutory processes including provision of technical advice for impact assessments is guided by our tikanga (customs and protocols) and mātauranga (tribal knowledge) and framed by Te Tiriti o Waitangi, our Te Kawerau ā Maki Claims Settlement Act 2015, our Iwi Management Plan (IMP), and our organisational strategic values: Mana Motuhake (independence); Kaitiakitanga (guardianship and sustainable management); Whānaungatanga (people focused); Auahatanga (innovation); Mātauranga Māori (culture-driven).

2.0 Site Description

The project is situated in northern West Auckland/southwest Kaipara running from Hobsonville to Waimauku. It essentially runs along the low-lying alluvial plains between the Waitākere Ranges to the southwest, the Riverhead hill country to the north, and the Waitemata Harbour to the east. The project is situated primarily within the catchment of the Kumeū River. For the most part the project follows the alignment of SH16 and its various feeder roads, however the proposed Alternative State Highway crosses rural land to the west between the townships of Taupaki and Kumeū/Huapai.

The wider proposed project area (hereafter the Study Area) includes the entire alignment including the local and strategic network and a wider catchment of 4km radius from the project footprint. This wider area is appropriate for placing the project within its proper cultural landscape context and for capturing any potential setting impacts.

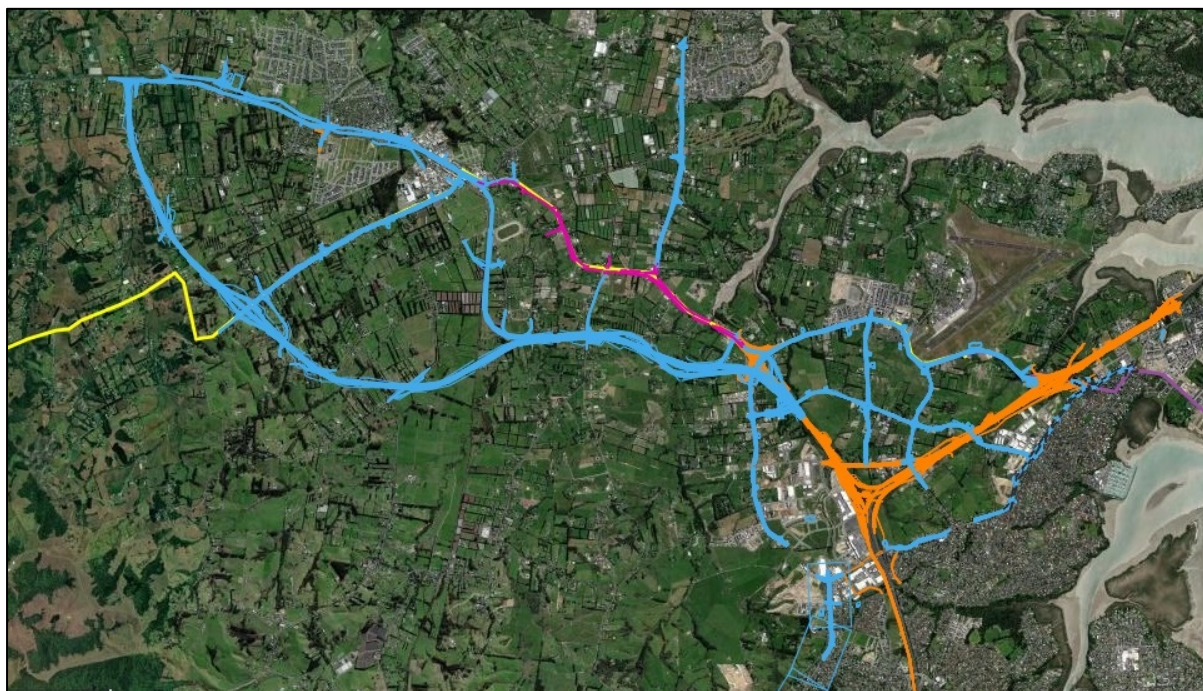


Figure 2: Plan showing Site (supplied by Client)

For the purposes of this report, the proposed project site (hereafter the Site) includes the local and strategic network footprint, including both its construction (including temporary compounds) and operational phases. Specifically this includes the Redhills, Riverhead, and Whenuapai ‘arterials’ as well as the strategic corridors known as ASH, Main Rd, RTC, and Access Rd.

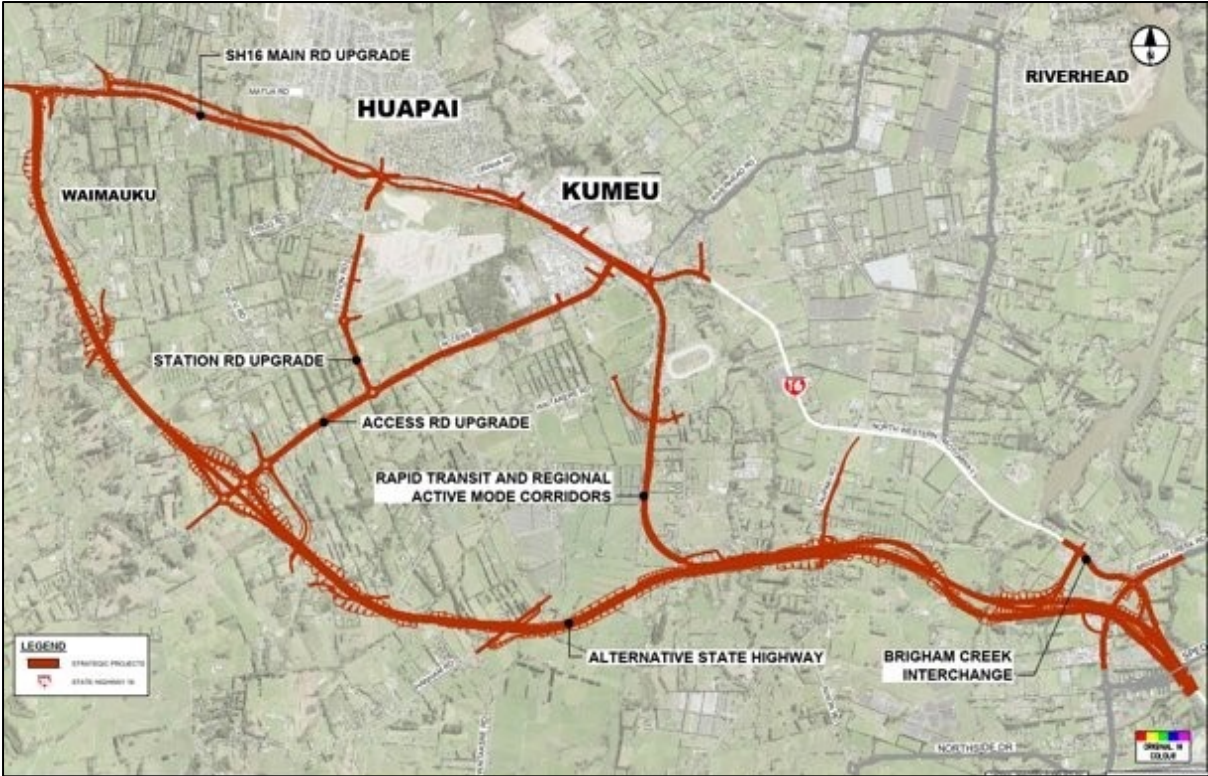


Figure 3: Plan showing Strategic Network (supplied by Client)

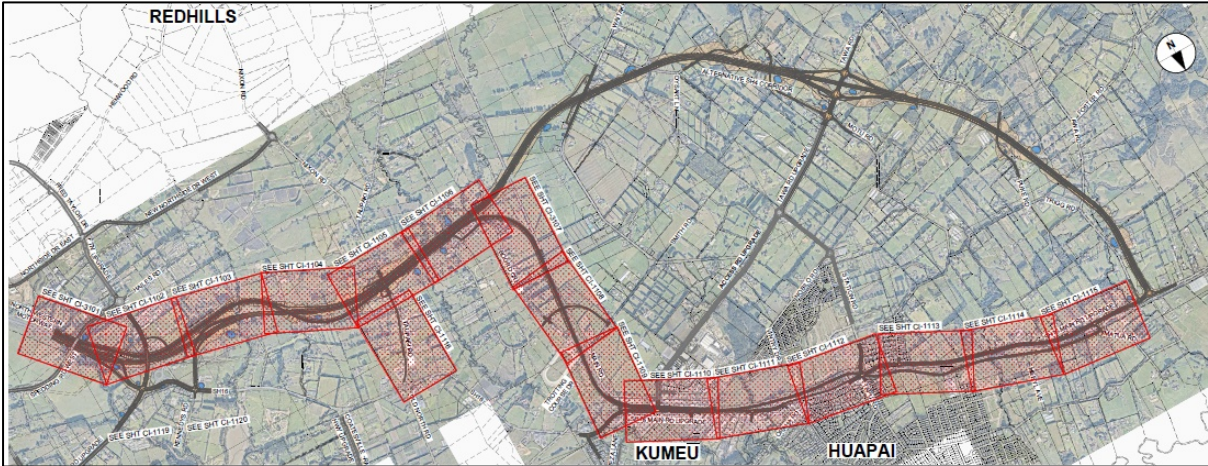


Figure 4: Plan of the Rapid Transit Corridor and Regional Active Mode (supplied by Client)

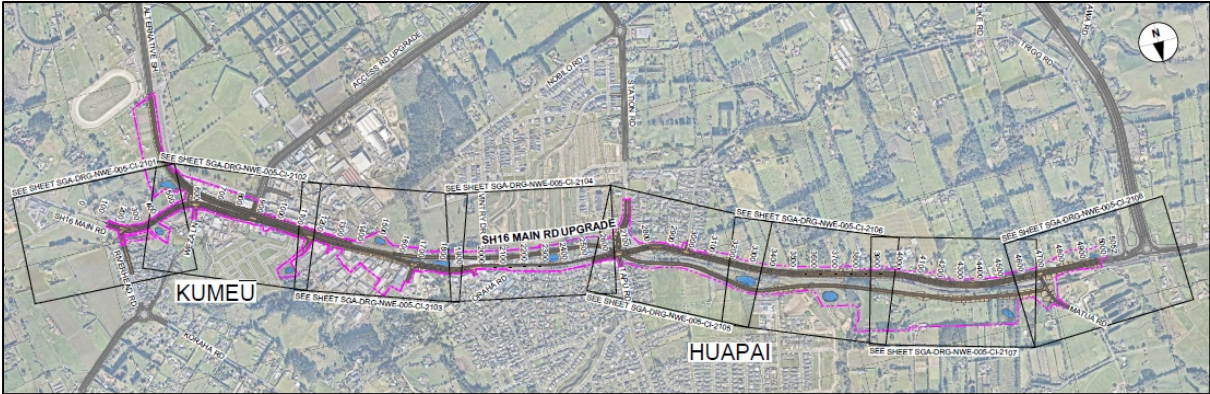


Figure 5: Plan of the SH16 Main Rd footprint (supplied by Client)

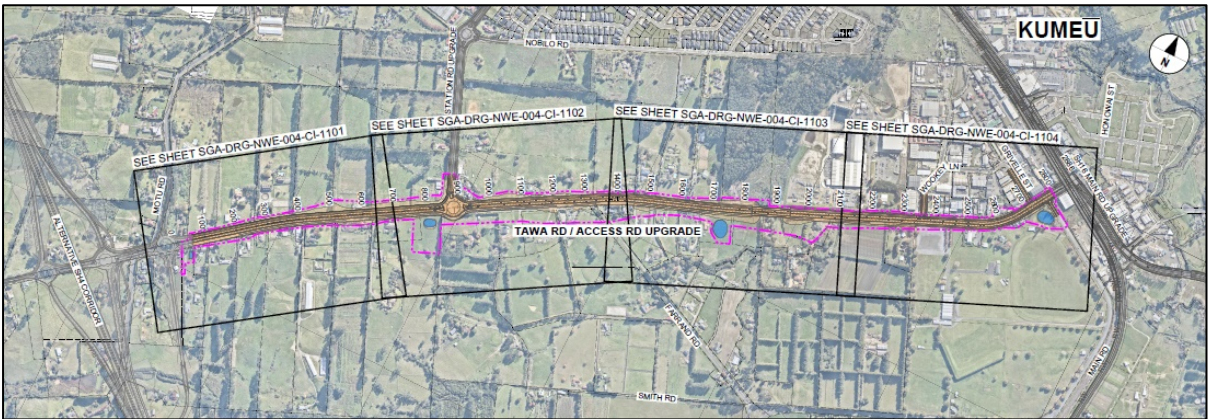


Figure 6: Plan of the Access Rd footprint (supplied by Client)

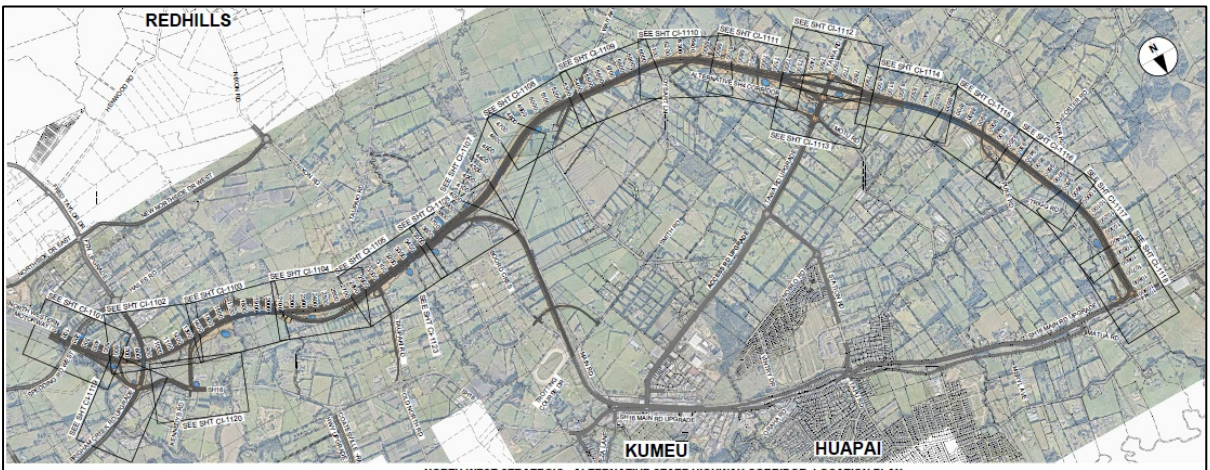


Figure 7: Plan of the Alternative State Highway footprint (supplied by Client)

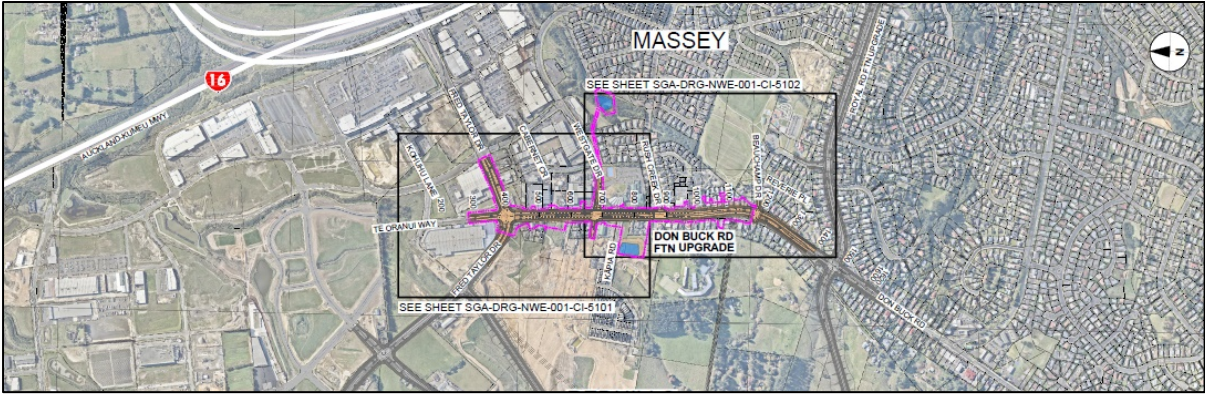


Figure 8: Plan of Don Buck Rd Local Network footprint (Supplied by Client)

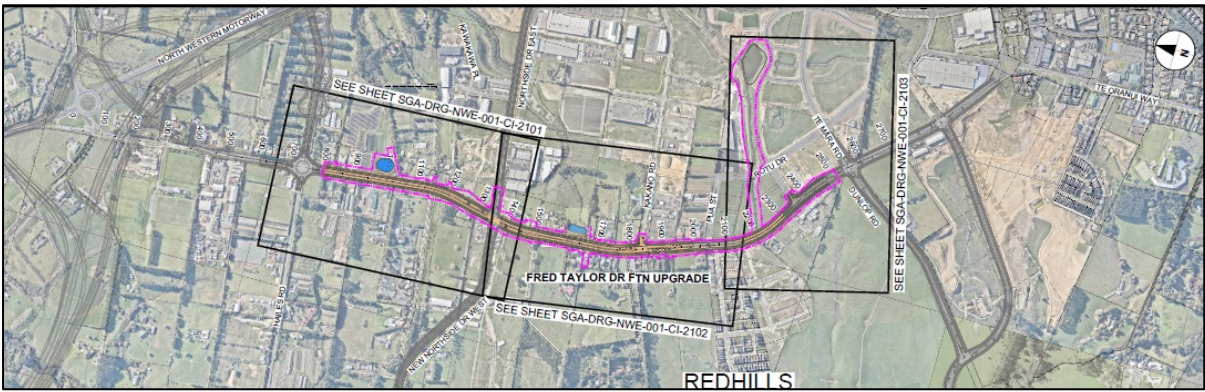


Figure 9: Plan of Fred Taylor Dr Local Network footprint (Supplied by Client)



Figure 10: Plan of Red Hills Arterial footprint (Supplied by Client)

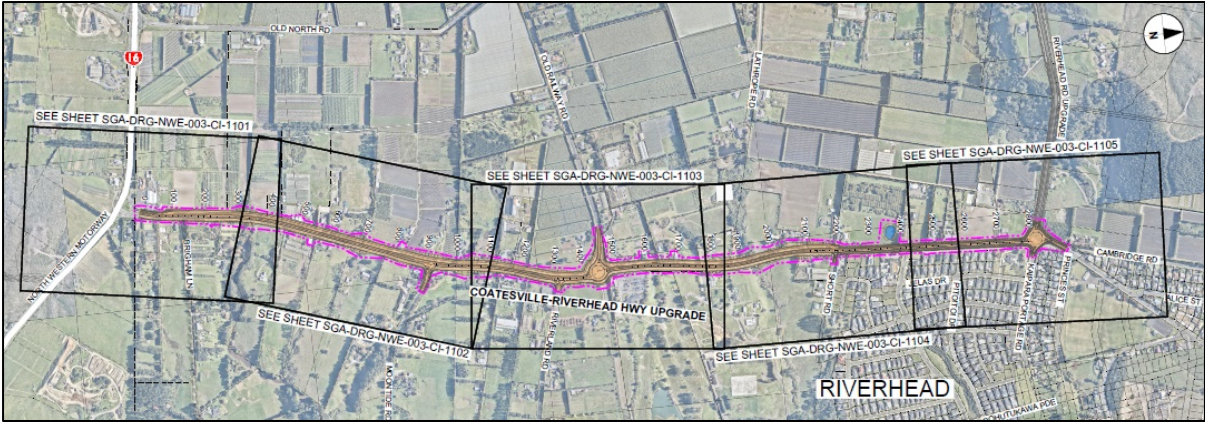


Figure 11: Plan of Coatesville-Riverhead HWY Local Network footprint (Supplied by Client)

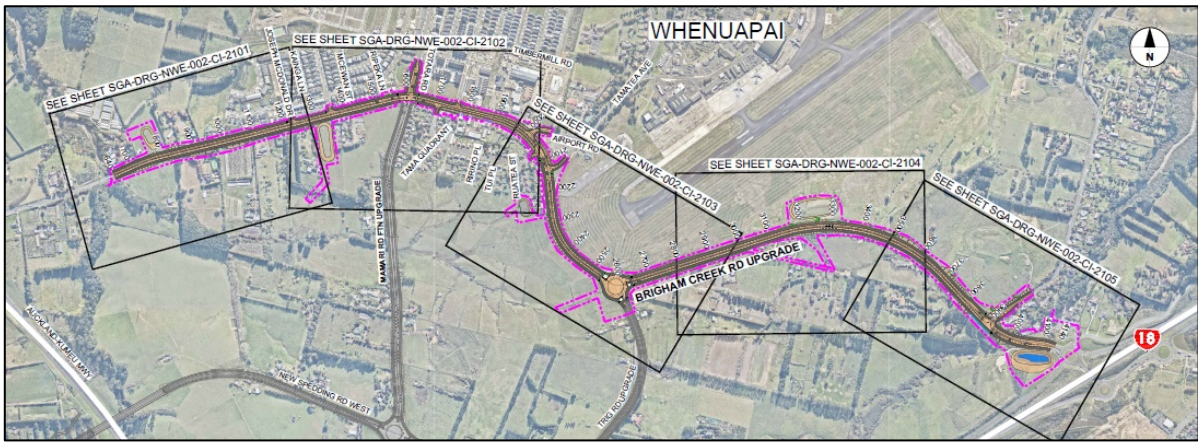


Figure 12: Plan of Brigham Creek Rd Local Network footprint (Supplied by Client)



Figure 13: Plan of Hobsonville Rd Local Network footprint (Supplied by Client)

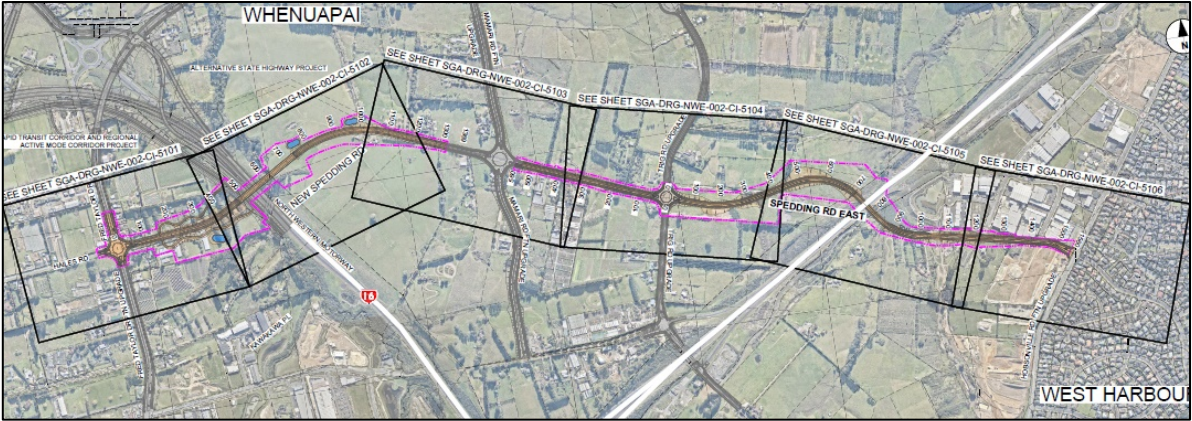


Figure 14: Plan of New Spedding Rd Local Network footprint (Supplied by Client)

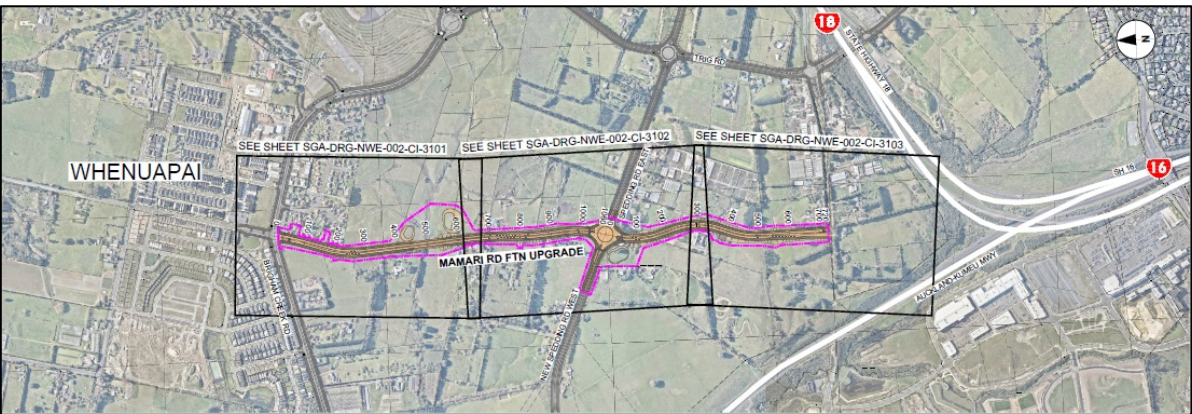


Figure 15: Plan of Mamari Rd Local Network footprint (Supplied by Client)



Figure 16: Plan of Trig Rd Local Network footprint (Supplied by Client)



Figure 17: Plan of Trig Rd Corridor footprint (Supplied by Client)

3.0 Aims and Objectives

The aim of this CIA report is to document Te Kawerau ā Maki's cultural values, interests, and associations with the Site; identify specific cultural sites and resources; assess the values of these sites and resources; identify the potential impacts that arise from project activities and assess the significance of effect; and provide recommendations as to how to avoid, remedy or mitigate the potential effects to Te Kawerau ā Maki.

This impact assessment will:

- provide a baseline of known environmental or natural features and resources that may hold cultural values;
- provide a statement of cultural association Te Kawerau ā Maki has with the Site and Study Area;
- identify any known cultural sites and resources within the Site or Study Area;
- describe the value or significance of such sites and resources;
- identify the potential for unrecorded cultural sites (i.e. buried Māori archaeology);
- identify the cultural constraints and risks associated with the Site and the potential significance of effects; and
- provide recommendations for further assessment where necessary and/or measures to avoid, remedy or mitigate adverse effects upon Te Kawerau ā Maki.

METHODOLOGY

4.0 Statutory Context

Te Tiriti o Waitangi

The key guiding document in any consideration of planning or practice that may impact upon the cultural values or wellbeing of Mana Whenua is Te Tiriti o Waitangi. The principles of the Treaty are recognised and provided for in the sustainable management of ancestral lands, water, air, coastal sites, wāhi tapu and other taonga, and natural and physical resources. The Treaty is articulated in law through an evolving set of principles. These include:

- a. reciprocity
- b. rangatiratanga
- c. partnership
- d. shared decision-making
- e. active protection
- f. mutual benefit
- g. right of development
- h. redress.

While Article 1 of the Treaty enables the Crown to govern and make laws, Article 2 guarantees Māori rangatiratanga over their people, lands and taonga (things of value). Māori values, associations and interests with their taonga applies regardless of property titles or other constructs, and the Treaty requires that the Crown actively protect these associations and interests (including through but not limited to statutes). Article 3 provides for equality and equity of citizenship and outcome.

Te Kawerau ā Maki Claims Settlement Act 2015

Te Kawerau ā Maki Claims Settlement Act (TKaMCSA) records the acknowledgements and apology given by the Crown to Te Kawerau ā Maki for historic grievances and breaches of Te Tiriti o Waitangi and gives effect to provisions of the Deed of Settlement that settles the historical claims of Te Kawerau ā Maki. The Act binds the Crown to Te Kawerau ā Maki to work together in accordance with Te Tiriti. The Settlement as delivered through the Act provided both cultural and commercial redress to Te Kawerau ā Maki. This includes binding protocols between Government Ministries and Te Kawerau ā Maki (Part 2, s21 to s26), a recognised and agreed area of interest (Part 1, s12(2b), Part 1 of attachments to Act), and statutory acknowledgements and deeds of recognition (Part 2, s27 to s40, and Schedule 1).

Statutory acknowledgements require relevant consent authorities, the Environment Court, and Heritage New Zealand Pouhere Taonga to: (a) have regard to the statutory acknowledgement; (b) require relevant consent authorities to record the statutory acknowledgement on statutory plans and to provide summaries of resource consent applications or copies of notices of applications to the trustees; and (c) enable the trustees and any member of Te Kawerau ā Maki to cite the statutory acknowledgement as evidence of the association of Te Kawerau ā Maki with a statutory area. The statutory acknowledgement supports Te Kawerau ā Maki trustees being considered as affected persons in relation to an activity within the area under s95E and s274 of the Resource Management Act (1991), and s59(1) and 64(1) of the Heritage New Zealand Pouhere Taonga Act (2014).

Te Kawerau ā Maki Statutory Acknowledgement Areas are:

- Taumaihi (part of Te Henga Recreation Reserve)
- Motutara Settlement Scenic Reserve and Goldie Bush Scenic Reserve
- Swanson Conservation Area
- Henderson Valley Scenic Reserve

- Coastal statutory acknowledgement
- Waitākere River and tributaries
- Kumeū River and tributaries
- Rangitōpuni Stream and tributaries
- Te Wai-ō-Pareira / Henderson Creek and tributaries
- Motutara Domain (part of Muriwai Beach Domain Recreation Reserve)
- Whatipū Scientific Reserve

Heritage New Zealand Pouhere Taonga Act 2014

Statutory protection of Māori archaeology and wāhi tapu is provided for under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA), which is administered by Heritage New Zealand Pouhere Taonga (HNZPT), an autonomous Crown Entity. Under the Act all *in situ* materials, sites, and features older than 1900AD are considered archaeological sites whether previously recorded or not and are afforded automatic protection from damage, modification, or destruction without first obtaining an Archaeological Authority from HNZPT. Moveable objects and artefacts that are not *in situ* but that are from an archaeological context, or are of Māori origin, are controlled under the Protected Objects Act (1975). The HNZ Act S45(2)b stipulates that works on sites of interest to Māori can only occur if (a) the practitioners can demonstrate they have the requisite competencies for recognising and respecting Māori values, and (b) the practitioners undertaking the works have access to appropriate cultural support. Under the Act Mana Whenua are enabled to provide advice or assessment regarding the management or decision taking arising from impacts to their cultural sites, provided these meet the Act's criteria. It is noted that Te Kawerau ā Maki never ceded our sovereignty to govern our taonga to HNZPT and view the HNZPTA as overstepping its authority or role as the decision-maker over the taonga of Te Kawerau ā Maki, thus being in direct breach of Article II of Te Tiriti ō Waitangi.

Resource Management Act 1991

The Resource Management Act (RMA) 1991 provides statutory recognition of the Treaty of Waitangi and the principles derived from the Treaty. It introduces the Māori resource management system via the recognition of kaitiakitanga and tino rangatiratanga and accords Territorial Local Authorities with the power to delegate authority to iwi over relevant resource management decisions. The Act contains over 30 sections, which require Councils to consider matters of importance to tangata whenua. Some of the most important of these are:

- Take into account principles of the Treaty of Waitangi and their application to the management of resources (Section 8).
- Recognition and provision for, as a matter of national importance, the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga (Section 6(e)).
- Having particular regard to the exercise of kaitiakitanga or the iwi's exercise of guardianship over resources (Section 7(a)).
- Requiring the Minister for the Environment to consider input from an iwi/hapū authority when preparing a national policy statement (Section 46).
- The ability for local authorities to transfer their functions, powers or duties under the Act to iwi authorities (Section 33).
- Development of joint management agreements between councils and iwi/hapū authorities (Section 36B to 36E).
- Having regard to any relevant planning document recognised by an iwi/hapū authority (sections 35A(b), 61.2A(a), 66.2A(a), 74.2A).
- The obligation to consult with iwi/hapū over consents, policies and plans. (Combination of all the sections above and Clause 3(1)(d) of Part 1 of the first schedule of the Resource Management Act).

An assessment of impacts on cultural values and interests (CIA) can assist both applicants and the council in meeting statutory obligations in a number of ways, including:

- preparation of an Assessment of Environmental Effects (AEE) in accordance with s88(2)(b) and Schedule 4 of the Resource Management Act 1991 (RMA)
- requests for further information under s92 of the RMA in order to assess the application
- providing information to assist the council in determining notification status under ss95 to 95F of the RMA
- providing information to enable appropriate consideration of the relevant Part II matters when making a decision on an application for resource consent under s104 of the RMA, or when undertaking a plan change
- consideration of appropriate conditions of resource consent under s108 of the RMA.

It is noted that Te Kawerau ā Maki never ceded our sovereignty to govern our taonga to local authorities and view the RMA as enabling councils to overstep their authority or role as the decision-maker over the taonga of Te Kawerau ā Maki, thus being in direct breach of Article II of Te Tiriti ō Waitangi.

Reserves Act 1977 and Conservation Act 1987

Section 4 of the Conservation Act, which is invoked by the Reserves Act, states that the Act must be interpreted and administered as to give effect to the principles of the Treaty of Waitangi.

Public Works Act 1981

The PWA and its predecessor legislation have had a considerable negative impact upon Māori amounting to a breach of Te Tiriti Article II and international conventions. Te Kawerau ā Maki's last kāinga at Kōpironui was stolen by the Crown under the PWA in the 1950s leaving our people landless. While tacit protections for Māori land have been inserted into the PWA it remains a deeply problematic piece of legislation, both in terms of acquisition of land but also disposal of 'formerly' Māori land, that is not compliant with Te Tiriti o Waitangi or tikanga Māori.

5.0 Planning Policy Context

UN Declaration on the Rights of Indigenous Peoples

New Zealand supported the UN Declaration on the Rights of Indigenous Peoples (2007) in 2010. This support was an affirmation of fundamental rights and the aspirations of the Declaration. Article 11 states that indigenous peoples have the right to practise and revitalise their cultural traditions and customs, including the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature (clause 1). States shall provide redress through effective instruments, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs. (clause 2). Article 18 and 31 note that indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions. Further that Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

ICOMOS New Zealand Charter 2010

The International Council on Monuments and Sites (ICOMOS) is UNESCO's principal advisor in matters concerning the conservation and protection of historic monuments and sites and advises the World Heritage Committee on the administration of the World Heritage Convention (which includes provision of nationally significant heritage). The New Zealand National Committee (ICOMOS NZ) produced a New Zealand Charter in 2010 which has been adopted as a standard reference document by councils. The Charter sets out conservation purposes, principles, processes and practice. The scope covers tangible and intangible heritage, the settings of heritage, and cultural landscapes. Of particular relevance the Charter states that tangata whenua kaitiakitanga over their taonga extends beyond current legal ownership wherever such cultural heritage exists. The Charter also states that the conservation of Māori heritage requires incorporation of mātauranga and therefore is conditional on decisions made in association with tangata whenua and should proceed only in this context.

National Policy Statement for Freshwater Management 2020

The NPS for freshwater management provides national policy settings that relevant statutory agencies including local authorities must comply with. Central to the NPS is the concept of Te Mana o Te Wai set out in s1.3. This is an aspirational concept that means that the integrity (physical and spiritual) of all water is upheld to its highest possible quality or state. The Crown's interpretation of the concept is that the fundamental importance of water is recognised and that by protecting the health of freshwater we protect the health and well-being of the wider environment, including by protecting wai mauri, and the restoration of the balance between water, the environment, and communities. It provides six principles for the management of water (s1.3(4)). Relevant to tangata whenua are: (a) Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater; (b) Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations; (c) Manākitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others. Policy 2.2(2) states that tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for. Policy 2.2(3) requires that freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments. Section 3.4 sets out how councils must actively involve tangata whenua in the management of fresh water.

Auckland Unitary Plan

At a Local Government level, the Auckland Unitary Plan (AUP) provides for the protection and management of matters of importance to Mana Whenua including the environment and cultural heritage. These matters are set out in the Regional Policy Statement Chapter B6, but are also embedded in the lower-order policies and rules throughout the Plan.

Policy B6.2.2 provides for the recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation. This includes Policy B6.2.2(1) that provides for Mana Whenua to actively participate in the sustainable management of natural and physical resources including ancestral lands, water, sites, wāhi tapu and other taonga.

Policy B6.3.2 deals with recognising Mana Whenua values and includes clause (1) that enables Mana Whenua to identify their values associated with ancestral lands, freshwater, biodiversity, and cultural heritage places and areas, and clause (2) that requires the integration of Mana Whenua values, mātauranga and tikanga in the management of natural and physical resources within the ancestral rohe. Clause (3) ensures that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values. Clause (6) of the policy requires resource management decisions to have particular regard to potential impacts on: the holistic nature of the Mana Whenua world view; the exercise of kaitiakitanga; mauri; customary activities; sites and areas with significance spiritual or cultural heritage value; and any protected customary right under the Takutai Moana Act (2011).

Policy B6.5.2 provides for the active protection of Mana Whenua cultural heritage. Clause (2) sets out a framework for identifying and evaluating Mana Whenua cultural heritage using the assessment factors of: mauri; wāhi tapu; kōrero tūturu; rawa tūturu; hiahiatanga tūturu; and whakaaronui o te wā. Clause (4) requires the protection of places and areas listed in Schedule 12 Sites and Places of Significance to Mana Whenua from adverse effects. Clause (7) provides for the inclusion of a Māori cultural assessment in structure planning and plan change processes, and clause (9) encourages appropriate design, materials and techniques for infrastructure in areas of known historic settlement and occupation.

Iwi Management Plan

Te Kawerau ā Maki Resource Management Statement (1995) was lodged with Council explicitly as an iwi authority planning document under sections 66(c) and 74(b) of the RMA 1991 (since repealed). The IMP describes the continuing role of Te Kawerau ā Maki as kaitiaki (guardians) and provides policies to guide statutory authorities and applicants. Policy 2.2(2) promotes the integration of Te Kawerau ā Maki tikanga in resource management, while clause (3) requires engagement by all agencies within the rohe to help give effect to the kaitiaki role of the iwi. Policy 4.1.2(3) requires that cumulative effects upon Te Kawerau ā Maki are fully recognised and provided for. Policy 4.2.2 concerns Te Kawerau ā Maki cultural heritage and requires the protection of all heritage sites including access requirements (s4.2.2(1)); the involvement of Te Kawerau ā Maki in all instances where potential effects may arise (s4.2.2(2)); and the recognition of Te Kawerau ā Maki cultural and spiritual values (s4.2.2(3 and 4)). Policy 4.3.2 concerns the management of kōiwi, while s4.4.2 regards the management of water. Activities in the Coastal Marine Area are covered by s4.5.2. Waste management policies are described in s4.6.2 and land and landscape policies are set out in s4.7.2. Indigenous flora and fauna policy settings are described in s.4.8.2 including opposition to all destruction of native flora and fauna without Te Kawerau ā Maki written consent. Policy 4.9.2 concerns Te Kawerau ā Maki participation in design of the built environment and interpretation of heritage. The IMP also details formal support and adoption of the 1993 Matātua Declaration on cultural and intellectual property rights of indigenous peoples.

6.0 Te Ao Māori

Our worldview is the framework by which we understand and navigate our physical and metaphysical environment. A full account of the cosmological underpinnings of Te Ao Māori is not offered here but in brief it recognises both the spiritual and the physical, is guided by different domains governed by atua or distinct spiritual entities, and involves several core concepts including whakapapa, mana, wairua, mauri, tapu, and noa. Te Ao Māori places emphasis on the holistic link between people and the environment. Mātauranga is the knowledge or wisdom about the world developed over generations and passed down from tūpuna, while tikanga is the evolving set of principles and customary practices by which Māori give effect to this knowledge to navigate the world safely.

Papatūānuku

The primordial goddess embodying the whenua or land. She is the earthmother to all living things. This whakapapa is one of the reasons why whenua is the name for placenta as well as land, and why in Te Ao Māori tangata whenua belong to the whenua and not the other way around. Papatūānuku is a source of rejuvenation and life.

Ranginui

The primordial god embodying the sky or heavens. He is the skyfather to all living things. When he was separated from his wife Papatūānuku by their children, his tears became the rain which is considered tapu until it reaches the ground (wai Māori).

Tūmataunga

The god of war and human activities and a progenitor of humanity.

Tāwhirimātea

The god of weather including thunder, lightning, wind, clouds and storms. He was opposed to the forced separation of his parents Papatūānuku and Ranginui and therefore he wars with his brothers and their descendants to this day.

Tāne

The god of forests and animals and an originator and protector of humans. Responsible for separating the embrace of his parents and ushering in Te Ao Marama (the age of light).

Tangaroa

The god of the sea, lakes, rivers and animals that live in them. There is a close and sometimes contentious relationship between Tangaroa and Tāne reflected in creatures such as reptiles and whales and in the dynamic between the sea and the coastline.

Rongo

The god of cultivated plants and agriculture also associated with peace.

Haumia-tiketike

The god of uncultivated plants and wild foraging.

Matā-oho

The local god of volcanic activity and earthquakes that formed the Tāmaki volcanic field.

Whakapapa

The sacred genealogy linking all things. Humans whakapapa not only to human tūpuna (ancestors), but also to the whenua, atua and their respective lineages. All indigenous animals and plants have an interconnected whakapapa. Whakapapa is a prerequisite of mana whenua, whānaungatanga, and kaitiakitanga.

Mana

A core metaphysical concept regarding the inherent authority or power of people, places or objects. Mana is derived or delegated from atua and, in the case of humans, is both inherited and earned through actions. Everything including people has an element or degree of mana. A person or tribe's mana can increase or decrease depending on the success, failure or nature of actions (or inactions) and is directly tied to their wellbeing. Undertaking the responsibilities of manakitanga and kaitiakitanga successfully are examples of maintaining or enhancing mana and contribute to cementing mana whenua.

Tapu

A core metaphysical concept regarding a state or degree of sacredness, prohibition, being set apart or forbidden. Tapu is a state where a person, place or thing is under the protection of or dedicated to an atua and is thus removed from profane or normal or common things and uses. Tapu is closely linked to mana and governs the behaviour of individuals and the wider society. Everything including people has an element or degree of tapu that must be preserved and respected. It is a priority of rangatira, tohunga and kaitiaki to maintain tapu and to ensure it is not diluted by common things. As with mana, the maintenance of tapu is directly linked to the wellbeing of both individuals and the tribe.

Noa

A core metaphysical concept regarding a normal or common (and sometimes profane) state that is in essence the opposite of tapu. Noa actions and things (whakanoa) can dilute tapu.

Wairua

A core metaphysical concept regarding the immortal spiritual or non-physical element of people, places or things.

Mauri

A core metaphysical concept regarding the essence that binds the physical and the spiritual together to enable life to exist and to thrive. Mauri is a sacred element and can be weakened or enhanced. When damaged or diluted the binding between the physical and the spiritual realms is weakened and life begins to falter and fail. It is the sacred obligation of mana whenua, through the act of kaitiakitanga, to maintain the balance of mauri within people, places, objects, ecosystems, and the hapū or iwi.

Mātauranga

The body of knowledge or customary wisdom and skill embedded within the tohunga, whānau, hapū and iwi. Mātauranga is passed down the generations from tūpuna but is also added onto through successive generations of uri, and culturally encodes hundreds of years of observations, measurements, theory, and custom regarding Te Ao Māori and the environment.

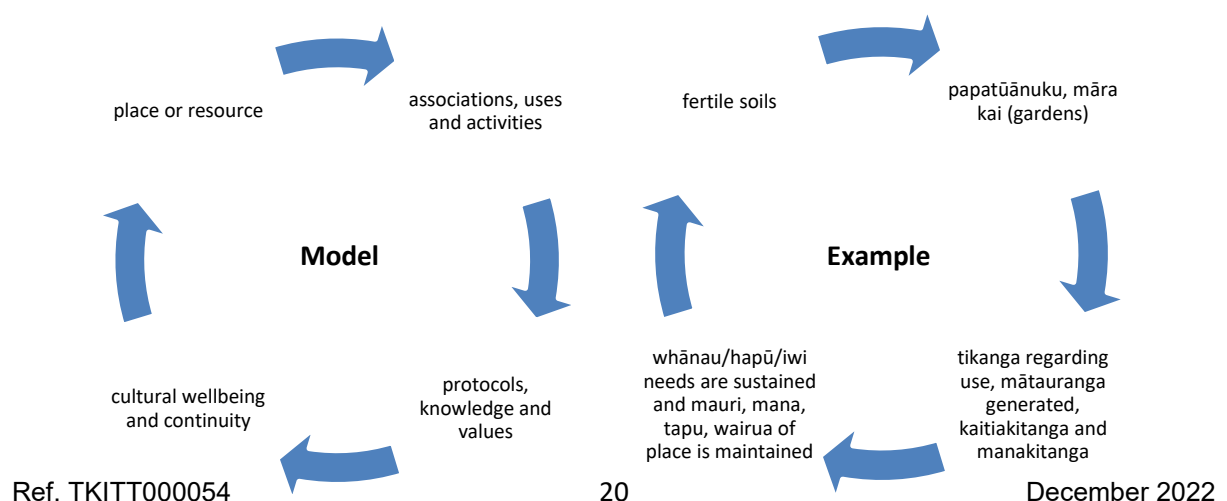
Tikanga

The lore, customs, practices, protocols, rules and methods that give effect to the application of mātauranga in navigating the natural and social world. There are different tikanga for different contexts and in different domains.

Cultural Values

Cultural values are the shared norms that govern the continuation of culture and provide the framework for social and individual actions. Key values include: rangatiratanga (chiefly authority or self-governorship), whānaungatanga (kinship and reciprocal connection through shared whakapapa), wairuatanga (spirituality), manakitanga (hospitality and showing care), and kaitiakitanga (guardianship or stewardship).

A model of how cultural values function is provided below.



7.0 Scoping and Consultation

The Study Area comprises a 4000m radius from the Site (from any point along its corridor). This radius is considered appropriate given the large scale of the Site and the presence of heritage sites within the catchment that could have setting or indirect impacts. Within this area all appropriate and known cultural sites, areas, landscapes and resources have been identified. Te Kawerau ā Maki however reserve the right to withhold certain information regarding wāhi tapu or sites that are culturally and spiritually sensitive to the iwi.

This report includes all known or appropriate-to-report elements of the natural and cultural environment within the Site and Study Area considered to hold cultural value for Te Kawerau ā Maki. This information forms the baseline of the assessment. This includes native biodiversity and ecology, geological and topographic features, natural resources including water bodies, built heritage such as marae, socio-cultural features such as papakāinga, cultural landscapes, historic or cultural sites, Māori archaeological sites, pou whenua and significant cultural public art.

Mātauranga/cultural knowledge of the Site and Study Area has been obtained, where appropriate, from Te Kawerau ā Maki kaumatua, kuia and other holders of knowledge within the iwi. Readily available published and unpublished written records, illustrations, maps, archaeological and geological records were reviewed during preparation of this cultural assessment. Spatially referenced heritage asset data was reviewed from the Auckland Council Cultural Heritage Inventory (CHI) and the New Zealand Archaeological Association (NZAA) recording scheme database (ArchSite). Other information, reports, and impact assessments available for the Site that have been provided by the Client have been reviewed including: engineering and design drawings of the route and a summary analysis of impacts identified from other disciplines. The opinions contained within this document may change and/or develop as new information is released.

This Cultural Impact Assessment involved a desktop study based on review of technical information, cultural knowledge of the area, and research, as well as site visits along the corridor to assess and confirm site conditions.

8.0 Assessment Approach

Following standard Environmental Impact Assessment (EIA) methodologies and planning terminology, but adapted for CIA purposes, this report will:

- a. **Identify** the cultural sites, areas and resources (defined as both tangible and intangible cultural heritage, natural resources of cultural interest, and socio-cultural features) within a Study Area encompassing the proposed Site and a wider area that may be directly or indirectly impacted. The Study Area is defined as approximately 4000m radius of the Site to correspond with a likely area of setting impacts (e.g. noise, visual), indirect impacts, and a logical catchment of the cultural landscape.
- b. Provide comment on the cultural **value** of the identified cultural sites, areas and resources. Māori cultural value is not derived from national or local policy but is defined and determined by tangata whenua and their particular world view and culture. Māori values are distinct from historic, archaeological or other value-systems, and are recognised by the courts and statute as their own legitimate knowledge-system with tangata whenua being the experts. Māori values are informed by whakapapa and guided by tikanga and kawa, with emphasis placed on the associative and living connection to places and resources which sustain cultural knowledge (mātauranga), practices, and spiritual and physical wellbeing. All cultural sites, areas and resources are of value to Te Kawerau ā Maki, who hold a holistic view of the environment and the unique relationship of the iwi to the whenua. It is difficult to apply a Western paradigm of value hierarchy or significance ranking (i.e. 'low, medium, high') when using a Te Ao Māori lens. Nevertheless, the methodology here attempts to distinguish the relative importance of matters as determined by a number of criteria, including the degree of mana, tapu or mauri, the degree to which a resource

has specific kōrero or mātauranga, its sensitivity to changes (ability to absorb impacts), and its relative scarcity. This approach recognises that a matters' value is intrinsic but relative to context. This approach is supported by RMA Part II matters noting the relationship of tangata whenua with their lands, waters, and taonga as nationally significant. The approach is set out below:

- high: cultural sites/areas/resources that retain their integrity overall, are either rare or are common but hold specific customary uses or mātauranga, are considered a wāhi tohu or landscape indicator, or have a high sensitivity to change.
- medium: cultural sites/areas/resources that retain the key elements of their integrity, are either uncommon or are common but hold specific customary uses or mātauranga, or have a moderate sensitivity to change.
- low: cultural sites/areas/resources that have been significantly degraded or damaged, are common and do not hold specific current customary uses or mātauranga, or have a low sensitivity to change.

Value is also assigned against the cultural values identified in the AUP Policy B6.5.2(2):

- i. Mauri: the mauri (life force and life-supporting capacity) and mana (integrity) of the place or resource holds special significance to Mana Whenua;
- ii. Wāhi Tapu: the place or resource is a wāhi tapu of special, cultural, historic, metaphysical and or spiritual importance to Mana Whenua;
- iii. Kōrero Tūturu: The place has special historical and cultural significance to Mana Whenua;
- iv. Rawa Tūturu: the place provides important customary resources for Mana Whenua
- v. Hiahiatanga Tūturu: the place or resource is a repository for Mana Whenua cultural and spiritual values; and
- vi. Whakaaronui o te Wa: the place has special amenity, architectural or educational significance to Mana Whenua.

c. Identify the potential **impacts** to cultural resources and elements. Only Mana Whenua can define the impact to their cultural values, but guidance is noted below. Cultural impacts can be:

- no change
- negligible: changes result in small impacts on integrity of the site/area/resource such that their function is reduced but not notably diminished, ability to understand/appreciate/use/access is impacted to a inconsequential degree, the ability to interpret the cultural landscape or setting is impacted but the change can easily be absorbed.
- minor: changes result in small impacts on integrity of the site/area/resource such that their function is reduced but not significantly diminished, ability to understand/appreciate/use/access is impacted to a small degree, the ability to interpret the cultural landscape or setting is impacted to a small degree or change can otherwise be largely absorbed.
- moderate: changes result in appreciable/significant impacts on the integrity of the site/area/resource such that their function is impeded, ability to understand/appreciate/use/access is impacted to a notable degree, the ability to interpret the cultural landscape or setting is impacted to a notable degree or change can otherwise not be absorbed.
- major: changes result in large scale/total impacts on the integrity of the site/area/resource such that their function is effectively destroyed, ability to understand/appreciate/use/access is impacted to a significant degree/is no longer possible, the ability to interpret the cultural landscape or setting is impacted to a significant degree or change can otherwise not be absorbed and the landscape or setting is no longer recognisable/able to function.

Impacts can be either adverse or beneficial. Impacts can also be temporary or permanent. They can occur during the construction or the operational phase of a development. Impacts can be:

- i. direct (i.e. physical impacts resulting from a development, impacts to the settings of cultural sites or the character of cultural landscapes, visual, noise, odour, or culturally inappropriate land use activities).
 - ii. indirect (i.e. traffic congestion, erosion due to vegetation loss, or other secondary impacts that occur over time or in a secondary location to the original activity).
 - iii. cumulative (i.e. impacts which are caused by the combined result of past, current and future activities, or in-combination impacts).
- d. Define the **significance of effect** resulting from combining the value of a cultural site, area or resource and the level of potential impact to that site, area or resource. Significance of effect is assessed pre-mitigation but can also be assessed again post-mitigation to ascertain the *residual effect* and effectiveness of any proposed mitigation. Significant effects (within a planning framework) are those with moderate or large effects (either adverse or beneficial). This method is outlined below in Table 1. Note that positive effects will be coloured green.

Table 1: Significance of effect

		LEVEL OF IMPACT				
		No Change	Negligible	Minor	Moderate	Major
CULTURAL VALUE	High	Neutral	Minor	Moderate	Large	Large
	Medium	Neutral	Negligible	Minor	Moderate	Large
	Low	Neutral	Negligible	Negligible	Minor	Moderate

9.0 Assumptions and Limitations

Te Kawerau ā Maki are the experts of our own culture and tikanga. This expertise and the equal weighting of mātauranga Māori evidence is accepted in the courts and by statute. Through a necessity to work within a Western planning framework we utilise planning language where possible to aid in mutual understanding, however there is difficulty in the translation and application of some core cultural concepts to such a framework. This is particularly an issue when segmenting or demarcating value spatially, when ascribing a type of significance hierarchy, and when limiting value to tangible elements, whereas Māori hold a holistic perspective that operates differently to typical Western paradigms. This means that where there is doubt or confusion over a term or point of discussion, readers should contact Te Kawerau ā Maki directly for clarification.

Due to the sensitive nature of certain cultural knowledge, areas and sites (e.g. burial grounds), Te Kawerau ā Maki reserves the right not to identify the exact spatial extents or provide full information of such areas to retain and protect this knowledge within the iwi. In other situations, while a general area may be known to be of cultural significance the exact spatial extent or location of the site may have been lost over successive generations. Where possible and appropriate, sites are described and defined to enable discussion of the impacts while acknowledging these limitations.

The environmental and archaeological data relied upon for elements of this report are derived from secondary sources and it is assumed the data and opinions within these and other secondary sources is reasonably accurate.

The CHI and ArchSite databases are a record of known archaeological and historic sites. They are not an exhaustive record of all surviving historic or cultural sites and resources and do not preclude the existence of further sites which are unknown at present. The databases also utilise a site location point co-ordinate system rather than detailing site extents or cultural landscapes.

ENVIRONMENTAL BASELINE

10.0 Topography and Geology

The Site is situated across the alluvial plains of the Kumeū River and Upper Waitemata Harbour, which crosses a number of underlying geological substrata. Near the mid-point of the network near Westgate this includes Waitemata Group East Coast Bays Formation being of “*Alternating sandstone and mudstone with variable volcanic content and interbedded volcanoclastic grits.*” Near Whenuapai and Riverhead the underlying geology is of Late Pliocene to Middle Pleistocene pumiceous river deposits being of “*Pumiceous mud, sand and gravel with muddy peat and lignite: rhyolite pumice, including non-welded ignimbrite, tephra and alluvia.*” Within the Kumeū basin the underlying geology is Holocene river deposits consisting of “*Sand, silt mud and clay with local gravel and peat beds.*” Near Waimauku and Huapai the underlying geology is Tauranga Group Middle Pleistocene - Late Pleistocene river and hill slope deposits being “*Predominantly pumiceous sand, silt, mud and clay, with interbedded gravel and peat.*”

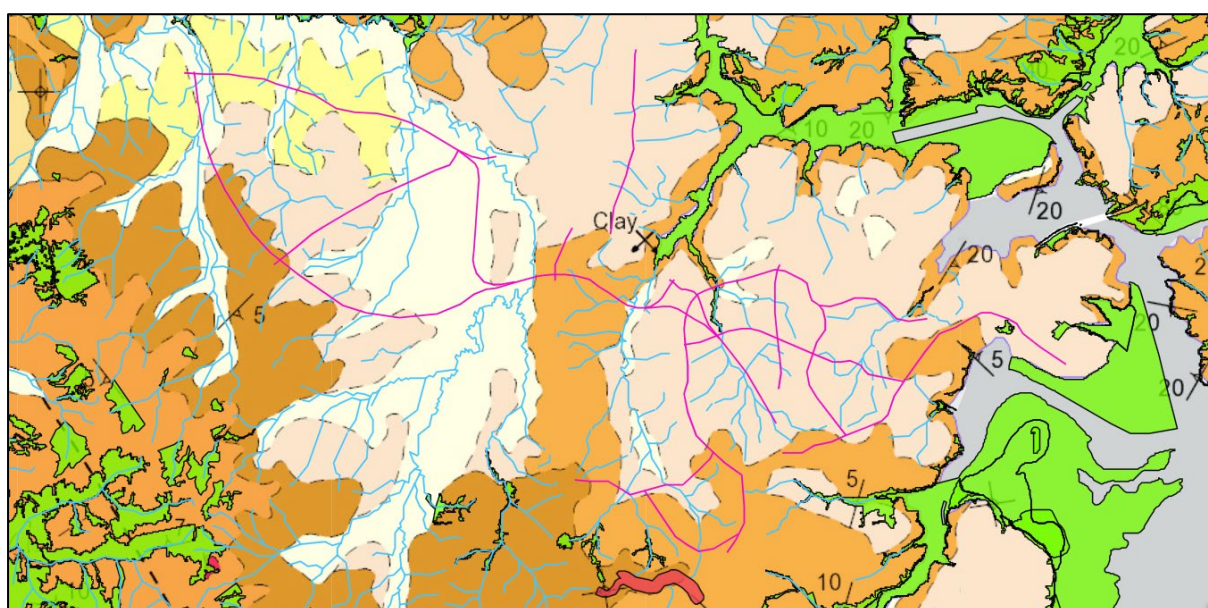


Figure 18: Map showing the underlying geology of the Study Area (adapted from GNS Science)

While all whenua is associated with Papatūānuku, alluvial soils are particularly valued due to their unique composition and higher organic content making them highly productive for horticulture, and thus containing a strong sense of mauri. The Land-Use Capability of these alluvial soils ranges from 1 (negligible limitations to horticulture) to 3 (moderate limitations to horticulture) meaning they are of very high productive quality, and in fact the largest area of high quality horticultural soils in northern Auckland.

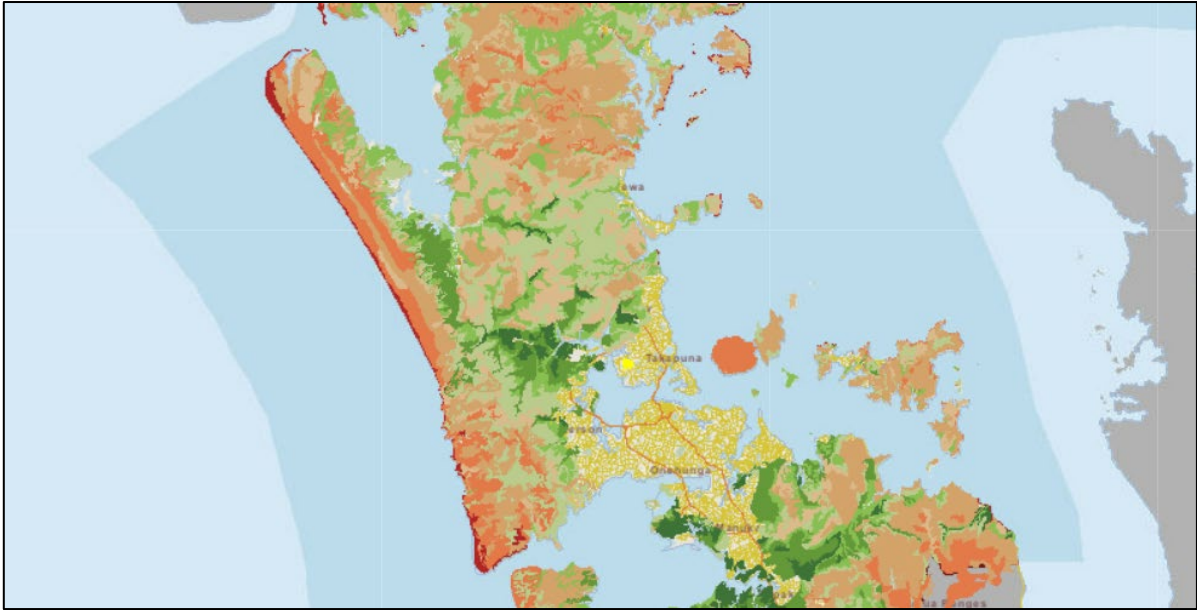


Figure 19: Land-use capability map showing high productivity within the Study Area (from Auckland Council)

The topography of the Site is low-lying alluvial plains for the most part, with steeper terrain to the south along the Waitakēre Ranges and to the north along the Riverhead hillcountry. The major drainage catchment is the Kumeū River but the Site also drains to Te Wai Roa ō Kahu (Upper Waitemātā Harbour) and to Te Wai ō Pareira (Henderson Creek) via Manutewhau awa. The landscape is predominantly of an open rural (pasture) character but with areas of urban character at Whenuapai, Westgate, Kumeū and Huapai. There are no Outstanding Natural Features (ONFs) or Outstanding Natural Landscapes (ONLs) within or immediately adjoining the Site footprint, although ONLs are within the western part of the Study Area.

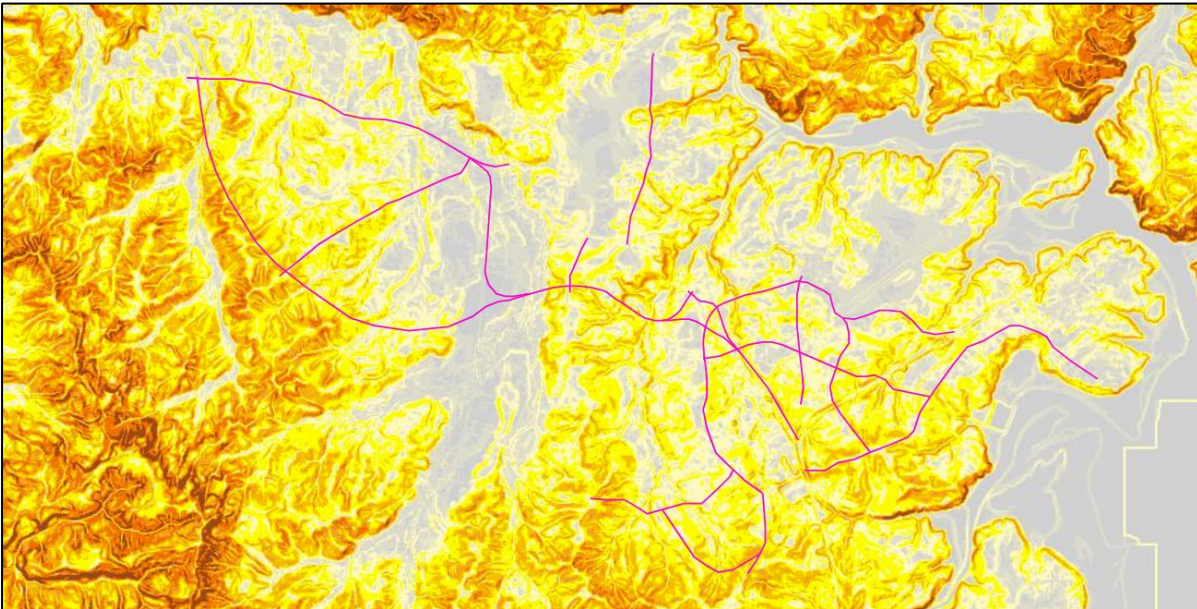


Figure 20: Map showing slope within the Study Area

11.0 Natural Resources and Ecology

Freshwater

The natural resources and ecology of the wider Study Area include significant freshwater ecosystems and habitat. This includes Te Waitematā, Te Wai ō Pareira (Henderson Creek), Wai Whauwhaupaku (Swanson Stream), Manutewhau awa (Massey-West Harbour), Wai huruhuru manawa (Massey), Wai Totorā (Westgate), Wai Whakataratara (Westgate), Ngongetepara awa (Westgate-Whenuapai), Waiteputa (Westgate-Massey West), Taketakemanu awa (Westgate-Taupaki), Rawawaru (Whenuapai), Te Waiarohia ō Ngariki (Whenuapai), Pītoitoi awa (Brigham Creek), Te Wai Roa ō Kahu (Upper Waitematā Harbour), Rangitōpuni awa (Riverhead), Pakinui awa (Taupaki), Te Awa Kumeū, Ahukāramuramu awa (Waimauku), Waikoukou Awa (Waimauku), and the Te Awa Kaipara. In addition there are likely to be numerous wetland areas across the Study Area and Site. Freshwater and marine SEAs in the Study Area include SEA-M2-57b, SEA-M2-55a, and SEA-M2-56a.

The Site directly crosses a large number of (around 26 notable) rivers, streams or major tributaries most notably Te Waiarohia ō Ngariki, Wai Totorā, Ngongetepara awa, Kumuū awa, and Ahukāramuramu awa.

The freshwater ecosystems within these waterways and waterbodies is not yet assessed (at the time of writing an ecological assessment was not available) but it is possible to include:

- indigenous fishes including tuna (eel), toitoi (bully), Īnanga, and kokopu
- indigenous freshwater invertebrates including mayflies, mud snails, dragonflies, freshwater mussels (kākahi), kōura (freshwater crayfish), and many others

Terrestrial

The natural resources and ecology of the wider Study Area include significant terrestrial ecosystems and habitat. This includes the Waitākere Ranges indigenous forest (Te Wao Nui ā Tiriwa) to the south and smaller pockets of vegetation Significant Ecological Area to the west and northwest. The Waitākere SEAs include old growth broadleaf and conifer forest of high biodiversity and habitat value across many endemic plant, fungi, invertebrate and vertebrate species. SEAs include: SEA_T_7036, SEA_T_2650, SEA_T_6381, SEA_T_6674, SEA_T_6743, SEA_T_2648, SEA_T_4866, and SEA_T_6540. There are also a number of scheduled trees within the Study Area and along the Site corridors including pohutakawa, kauri, rimu, tōtōra, and karaka.

Generally, however the area is typified by exotic vegetation including large areas of ryegrass, kikuyu grass, and other pasture grasslands, as well as exotic trees including poplars, willow and other species but particularly pine at Riverhead.

The terrestrial ecosystems across the area are not yet assessed (at the time of writing an ecological assessment was not available) but it is possible to include:

- indigenous plants including tī kōuka, harakeke (flax), kauri, mānuka, kānuka, kahikatea, rārahu (braken fern), ponga, tōtōra, rimu, pohutakawa, karaka, miro, tawa, mosses, liverworts and hornworts
- indigenous fungi including wood ear, sooty black mould, blue mushroom, and puffball
- indigenous herpetofauna including green gecko, forest gecko, copper skink, ornate skink, and although unlikely the Hochstetter's frog is found in the adjacent Waitākere Ranges

- indigenous invertebrates including earthworms (including giant North Auckland variety), wētā, grasshopper and many others

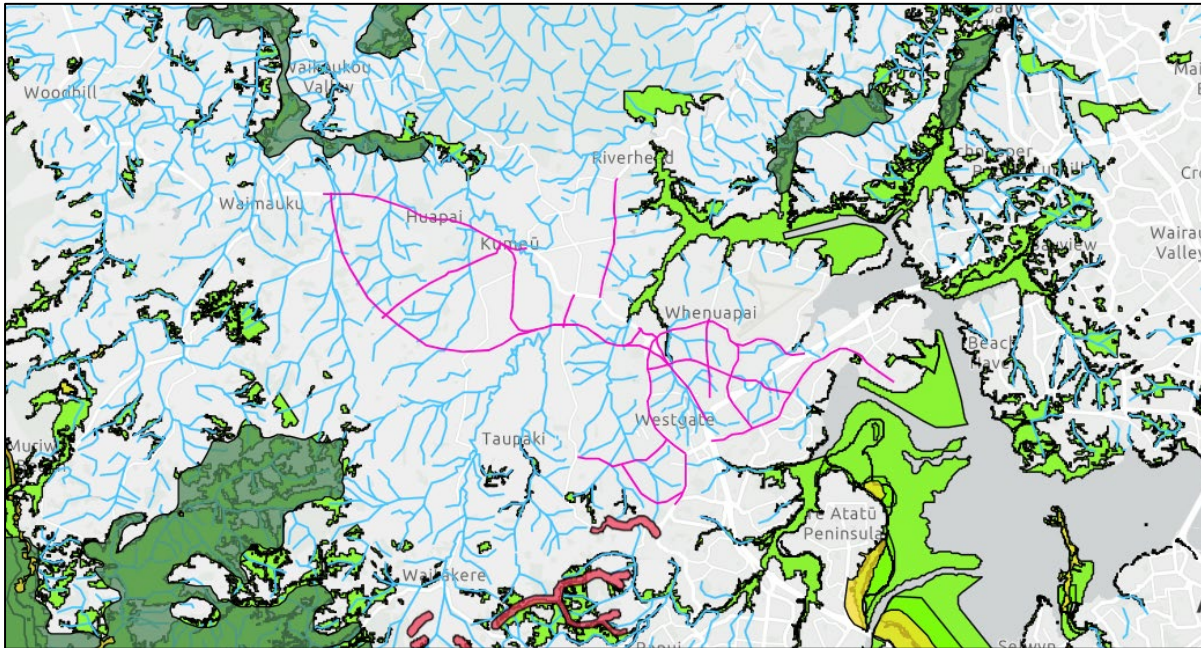


Figure 21: Map showing streams, significant ecological areas, and other natural features

Avifauna

As the Study Area covers marine, freshwater, forest, low-land plains, and hillcountry there are a wide variety of bird species as well as the native long-tailed bat (pekapeka) that interact with the area. The forested slopes of the Waitākere Ranges and Riverhead provide important roosting opportunity for bats as noted in the preliminary bat assessment carried out by the Client within a 10km radius of the Site. There are even several recordings of bats within the area we know as Ahipekapeka (west of Brigham Creek). The indigenous forest and SEAs to the south and west provide habitat for native birds such as tui, pīwakawaka, kereu, and ruru. The hillcountry and open plains provide habitat for kahu. The streams and coastal areas provide habitat for species such as tarāpuka (gull), takapu (gannet), kōtare (kingfisher), tōrea-pango (oystercatcher), poaka (stilts), pūtangitangi (paradise duck) and pūkeko. Importantly, several kawau (black shag or cormorant) have been spotted around Waimauku, Westgate, and the Upper Waitematā Harbour. The kawau is considered the kaitiaki of Te Kawerau’s rohe.

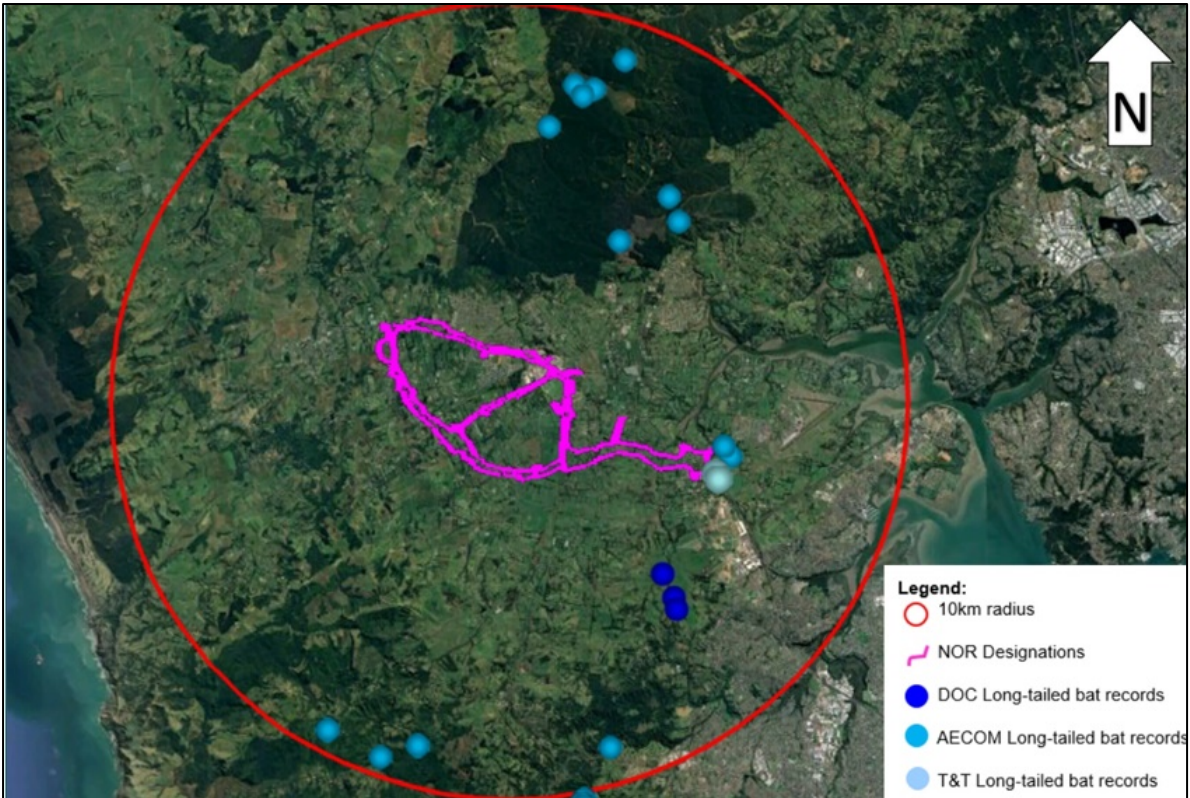


Figure 22: Map showing bat sightings within 10km of the Site (supplied by Client)



Figure 23: Image of a kawau (from NZ Birds Online)

IMPACT ASSESSMENT

15.0 Potential Direct Impacts

Direct impacts are likely to occur from bulk earthworks (permanent adverse), stream realignment (permanent adverse), works within a waterway (temporary and permanent adverse), construction and operational discharges to waterways (temporary and permanent adverse and beneficial), vegetation clearance (temporary and permanent adverse), noise pollution during construction of the Site network and operation of the ASH (temporary and permanent adverse), light pollution (permanent adverse), and changes to the setting of cultural sites (permanent adverse and beneficial),

16.0 Potential Indirect Impacts

Indirect impacts are likely to occur from vegetation clearance causing erosion (temporary adverse), severing habitat for terrestrial species during operation of ASH (permanent adverse), and subsequent large-scale urban intensification of the catchment enabled by the ASH (permanent adverse).

17.0 Potential Cumulative Impacts

Cumulative impacts are likely to occur from hydrological changes to the catchment (permanent adverse), net changes in stormwater contaminant discharges or quality (permanent adverse and beneficial), changes to the setting of and between wāhi tohu (permanent adverse), subsequent large-scale urban intensification of the catchment enabled by the ASH (permanent adverse), light pollution (permanent adverse), changes to the cultural landscape (permanent adverse and beneficial), and increased walking and cycling opportunities linked to human access and health and emissions (permanent beneficial).

18.0 Summary of Effects

Specific potential impacts identified as relating to the proposed project are included in Table 3 below:

Table 3: Summary of potential cultural impacts

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
Waimauku-Whenuapai Cultural Landscape	<p>Direct, indirect and cumulative permanent adverse construction and operation impacts arising from ASH including:</p> <p>Built form of ASH within rural setting</p> <p>Changes to the setting of and between wāhi tohu (visual, artificial lighting at night, aural, spiritual)</p>	Major Adverse	Large Adverse	<p>Urban and Landscape Design Management Plan</p> <p>Cut and fill batters shaped to a natural profile.</p> <p>Boundary fences and planting to be reinstated for partially affected properties.</p> <p>A planting plan, including limiting removal of noteworthy trees</p>	Moderate Adverse direct effects but Large Adverse indirect and cumulative effects	<p>Cultural Design Plan including funding for implementation.</p> <p>Scheduling (schedule 12 AUP) all identified Māori Sites of Significance within Study Area through a Private</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>Changes to the rural character necessitated through subsequent large-scale urban intensification of the catchment enabled by the ASH</p> <p>.....</p> <p>Potential direct permanent beneficial operation impacts arising from Local Network (Don Buck Rd, Fred Taylor Dr, Coatesville-Riverhead HWY, Brigham Creek Rd, Hobsonville Rd, New Spedding Rd, Mamari Rd, Trig Rd) and existing corridor Strategic Network (Main Rd, RTC, Access Rd) upgrades that can contribute cultural design, place naming, and walking and cycling access opportunities</p>	<p>Potential Negligible Beneficial (Non-ASH)</p>	<p>Potential Minor Beneficial (Non-ASH)</p>	<p>and vegetation where practicable.</p> <p>Where practicable retaining stockpiles and reusing soil on site.</p> <p>Construction Noise and Vibration Management Plan.</p> <p>Site Specific Construction Management Schedule</p> <p>Pre and Post Building Condition Survey where vibration may exceed certain criteria.</p> <p>Road surface material, option that reduces noise at the source</p> <p>Best practise rail design and installation</p> <p>Installation of noise barriers</p> <p>Building modification mitigation should above mitigation not achieve desired outcome</p> <p>Ecological and landscape planting will help integrate the corridors with rural areas. Alongside the limited access points, the ecological and landscaping will</p>		<p>Plan Plan Change.</p> <p>Establishment of a Cultural Heritage and Offset fund and trust be established for the benefit of TKaM and NWoK with regard to the conservation, interpretation, and education regarding taonga within the Study Area.</p> <p>Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)</p> <p>RFR in favour of TKaM placed on any land within the Designation that may eventually be disposed of by NZTA</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
				create a green buffer which will reinforce rural areas and will help avoid future development in rural areas.		
Whenua (productive soils)	<p>Direct, indirect and cumulative permanent adverse construction impacts arising from:</p> <p>Bulk earthworks primarily from ASH but also from the wider Strategic and Local Network</p> <p>Removal of regionally significant high productivity soils (mauri) necessitated through subsequent large-scale urban intensification of the catchment enabled by the ASH</p>	Major Adverse	Large Adverse	<p>Where practicable retaining stockpiles and reusing soil on site.</p> <p>Cut and fill batters shaped to a natural profile.</p>	Large Adverse	<p>Topsoil Conservation Plan</p> <p>Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)</p>
Wai Māori (fresh water)	<p>Direct, indirect and cumulative temporary and permanent adverse construction and operation impacts arising from:</p> <p>Earthworks within proximity to watercourses (particularly ASH)</p> <p>Vegetation clearance along watercourse embankments</p> <p>Significantly increased impervious area within sensitive receiving water</p>	Moderate Adverse	Large Adverse	<p>Construction Environmental Management Plans.</p> <p>Operational impacts worked through and resolved during detailed design by optimising the design of culverts and bridges and new channels to minimise flood effects upstream and downstream of crossings.</p> <p>Vegetated swales</p> <p>Stormwater wetlands</p>	Moderate Adverse	Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>environment (primarily ASH)</p> <p>Changes to hydrology of the catchment resulting from new roads and culverts (primarily ASH)</p> <p>Increased risk of operational discharges of heavy metals and other contaminants from traffic enabled by the ASH</p> <p>Changes to the landuse and discharge type necessitated through subsequent large-scale urban intensification (and net impervious area) of the catchment enabled by the ASH</p> <p>.....</p> <p>Potential direct and cumulative permanent beneficial impacts relating to the Local Network (Don Buck Rd, Fred Taylor Dr, Coatesville-Riverhead HWY, Brigham Creek Rd, Hobsonville Rd, New Spedding Rd, Mamari Rd, Trig Rd) and existing corridor Strategic Network (Main Rd, RTC, Access Rd) upgrades arising from:</p> <p>Improved stormwater management upgrades including swales, wetlands,</p>	<p>.....</p> <p>Minor Beneficial (Non-ASH)</p>	<p>.....</p> <p>Moderate Beneficial (Non-ASH)</p>	<p>Stormwater ponds</p> <p>Tree pits/rain gardens on routes with walking/cycling</p> <p>Use of bridges where possible (instead of culvert-reclamation systems)</p>		

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	ponds, and tree pits/rain gardens					
Waitematā ō Kahumatamomoe	No change to low potential negligible net or cumulative adverse impact resulting from works within catchment. On balance likely neutral once up-stream mitigations in place.	Neutral	Neutral	Nil	Neutral	Nil
Te Wai Roa ō Kahu	No change to low potential negligible net or cumulative adverse impact resulting from works within catchment. On balance likely neutral once up-stream mitigations in place.	Neutral	Neutral	Nil	Neutral	Nil
Wai ō Pareira	No change to low potential negligible net or cumulative adverse impact resulting from works within catchment. On balance likely neutral once up-stream mitigations in place.	Neutral	Neutral	Nil	Neutral	Nil
Te Awa Mānutewhau	Direct temporary and permanent construction and operation adverse impact from: Upgrades to Don Buck Rd Wetland 2 occurring directly within awa Slight increase in net impervious surface	Minor Adverse	Moderate Adverse	Refer to 'Wai Māori' mitigations above	Minor Adverse	Riparian planting for 200m in both directions from impact Mauri health monitoring for 5 years
Te Waiarohia ō Ngāriki	Direct and cumulative permanent construction and	Minor Adverse	Moderate Adverse	Refer to 'Wai Māori' mitigations above	Minor Adverse	Riparian planting for 200m in both

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>operation adverse impacts resulting from upgrades to southeast end of Brigham Creek Road and Trig Road upgrades from:</p> <p>Construction earthworks in proximity to the awa</p> <p>Works within the awa to install new culverts</p> <p>Permanent fill batter slopes adjacent to the awa</p> <p>Increase in impervious surface</p> <p>Construction of Hobsonville Rd Wetland 4</p>					<p>directions from impact</p> <p>Mauri health monitoring for 5 years</p>
Wai Rawawaru	No change	Neutral	Neutral	Nil	Neutral	Nil
Wai Totara	<p>Direct and cumulative permanent construction and operation adverse impacts resulting from upgrades to southeast end of Brigham Creek Road and RTC/RAMC from:</p> <p>Construction earthworks in proximity to the awa</p> <p>Permanent fill batter slopes adjacent to the awa</p> <p>New section of road (New Spedding Rd and RTC) and net</p>	Minor Adverse	Moderate Adverse	<p>Refer to 'Wai Māori' mitigations above</p> <p>New bridges over the span of the awa thus avoiding direct works in stream bed/banks</p>	Minor Adverse	<p>Cultural Design</p> <p>Riparian planting for 200m in both directions from impact</p> <p>Mauri health monitoring for 5 years</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	increase in impervious surface					
Te Awa Ngongetepara	<p>Direct and cumulative temporary and permanent construction and operation adverse impacts resulting from upgrades to northwest end of Brigham Creek Road and from new RTC alignment from:</p> <p>Construction earthworks in proximity to the awa</p> <p>Site compound, stockpile, sediment pond, and lay-down area adjacent to awa</p> <p>Permanent fill batter slopes adjacent to the awa</p> <p>Increase in impervious surface from RTC</p>	Minor Adverse	Moderate Adverse	<p>Refer to 'Wai Māori' mitigations above</p> <p>Proposed new RTC overbridge to avoid works within stream</p>	Minor Adverse	<p>Cultural design</p> <p>Riparian planting for 200m in both directions from impact</p> <p>Mauri health monitoring for 5 years</p>
Waiteputa	<p>Direct permanent construction and operation adverse impacts resulting from the new Redhills Arterial from:</p> <p>Construction earthworks in proximity to the awa</p> <p>Permanent fill batter slopes adjacent to the awa</p> <p>New section of road and net increase in impervious surface</p>	Minor Adverse	Moderate Adverse	<p>Refer to 'Wai Māori' mitigations above</p> <p>Lighting design to reduce light spill, buffer planting,</p>	Minor Adverse	<p>Cultural Design</p> <p>Riparian planting for 200m in both directions from impact</p> <p>Mauri health monitoring for 5 years</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
Te Awa Pītoitoi	<p>Direct and cumulative temporary and permanent construction and operation adverse impacts resulting from upgrades to northwest end of Brigham Creek Road from:</p> <p>Construction earthworks in proximity to the awa</p> <p>Site compound, stockpile, sediment pond, and lay-down area adjacent to awa</p> <p>Increase in impervious surface</p>	Negligible Adverse	Minor Adverse	Refer to 'Wai Māori' mitigations above	Negligible Adverse	<p>Riparian planting for 200m in both directions from impact</p> <p>Mauri health monitoring for 5 years</p>
Te Awa Rangitōpuni	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Awa Pakinui	Direct permanent operation adverse impact to the setting of the awa and its context which will be changed with the introduction of the new RTC and bridge about 250m to the north.	Negligible Adverse	Minor Adverse	Urban and Landscape Design Management Plan	Minor Adverse	Cultural design
Te Awa Kumeū	<p>Direct and cumulative construction and operation adverse impacts from:</p> <p>Works within the awa and its tributaries may impact the taniwha</p> <p>RTC and ASH new alignment significant earthworks in proximity to the</p>	Major Adverse	Large Adverse	<p>Refer to 'Wai Māori' mitigations above</p> <p>Proposed new RTC/ASH overbridge to avoid works within stream</p>	Large Adverse	<p>Avoid realignment of river</p> <p>Minimise earthworks in proximity</p> <p>Construction compounds set back 500m from river</p> <p>Cultural design</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>awa, particularly cut on east side</p> <p>RTC and ASH permanent fill batter slopes adjacent to the awa</p> <p>ASH stormwater wetland 4, 5 and 6, and Main Rd/RTC Wetland 2 in close proximity to awa</p> <p>RTC and ASH construction compounds in proximity to the awa</p> <p>Main Rd construction compound near east side of existing SH16 bridge</p> <p>RTC and ASH setting impacts from new bridge structures over the awa</p> <p>Works in awa for SH16 temporary road realignment, deconstruction of existing bridge, and construction of new bridge</p> <p>RTC and ASH new alignment net increase in impervious surface</p>					<p>Riparian planting for 500m in both directions from impact</p> <p>Mauri health monitoring for 5 years</p> <p>Establishment of a Cultural Heritage and Offset fund and trust be established for the benefit of TKāM and NWōK with regard to the conservation, interpretation, and education regarding taonga within the Study Area.</p>
Te Awa Ahukāramuramu	Direct and cumulative permanent construction and operation adverse impacts resulting from upgrades to ASH/RTC/Main Rd from:	Minor Adverse	Moderate Adverse	<p>Refer to 'Wai Māori' mitigations above</p> <p>Proposed new RTC/Main Rd bridge to avoid works within stream</p>	Minor Adverse	<p>Cultural Design</p> <p>Riparian planting for 200m in both directions from impact</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>Construction earthworks in proximity to the awa</p> <p>Permanent fill batter slopes adjacent to the awa</p> <p>Increase in impervious surface</p> <p>Construction of RTC/SH Wetland 10 and ASH Wetland 15</p>					Mauri health monitoring for 5 years
Waikoukou	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Awa Kaipara	Indirect and cumulative permanent adverse impacts from up-stream discharges and unlocking further urban intensification	Minor Adverse	Moderate Adverse	Refer to 'Wai Māori' mitigations above	Minor Adverse	Mauri health monitoring for 5 years
Native Ngahere and Rākau	No change	Neutral	Neutral	Nil	Neutral	Nil
SEA and Rakau within or adjacent to Site Footprint	Direct permanent construction adverse impacts relating to works near Brigham Creek SEA and other native vegetation along stream corridors	Minor Adverse	Minor Adverse	A planting plan, including limiting removal of noteworthy trees and vegetation where practicable.	Neutral	Nil
Native Fungi within or adjacent to Site Footprint	Direct permanent construction adverse impacts relating to earthworks, although scale of impact unknown as no assessments	Negligible Adverse	Negligible Adverse	Nil	Negligible Adverse	Include fungi identification in ecological assessments
Native Fishes within or adjacent to Site Footprint	Direct and cumulative temporary and permanent construction and operation adverse impacts from:	Moderate Adverse	Moderate Adverse	Nil	Moderate Adverse	<p>Fresh water ecological management plan</p> <p>Use of fish passage design</p>

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	<p>Works within waterways that could cause injury, death or displacement</p> <p>Realignment of Kumeū river could cause injury, death or displacement</p> <p>Installation of culverts</p> <p>Sediment and other construction discharges</p> <p>Increase in impervious surface and related discharges</p>					Mauri health monitoring for 5 years
Native Invertebrates within or adjacent to Site Footprint	<p>Direct permanent construction and operation adverse impacts relating to:</p> <p>Earthworks</p> <p>Light pollution</p> <p>although scale of impact unknown as no assessments</p>	Negligible Adverse	Negligible Adverse	Nil	Negligible Adverse	Include terrestrial invertebrate identification in ecological assessments
Native herpetofauna within or adjacent to Site Footprint	<p>Direct permanent construction and operation adverse impacts relating to:</p> <p>Earthworks that could cause injury, death or displacement,</p> <p>Removal of vegetation including rank grasses that could cause displacement</p> <p>Segmentation of the landscape/habitats</p>	Moderate Adverse	Minor Adverse	Nil	Minor Adverse	Lizard management plan

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	by the ASH, although scale of impact unknown as no assessments					
Native Avifauna within or adjacent to Site Footprint	<p>Direct, indirect and cumulative temporary and permanent construction and operation adverse impacts from:</p> <p>Removal of trees and vegetation along Site corridor leading to displacement</p> <p>Bird strike from ASH in proximity to Waitākere Ranges</p> <p>Light pollution from ASH and subsequent urban intensification</p> <p>Loss of open habitat for Kahu (Hawks)</p>	Minor Adverse	Minor Adverse	Impact management for TAR birds incl. North Island fernbird, banded rail and spotless crane to be incorporated into detailed design.	Minor Adverse	<p>Bird Management Plan</p> <p>Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)</p>
Native Bats	<p>Direct, indirect and cumulative temporary and permanent construction and operation adverse impacts from:</p> <p>Removal of trees and vegetation along Site corridor leading to displacement</p> <p>Light pollution from ASH and subsequent urban intensification</p>	Minor Adverse	Minor Adverse	<p>Bat management plan to be developed and incorporated into detailed design.</p> <p>Significant ecological planting to mitigate impacts on bats has been incorporated into the designation footprint. This will lead to the enhancement of riparian areas and will green much of the corridor.</p>	Minor Adverse	Bat management plan
Nga Rau Pou ā Maki (northern ridgeline)	Direct and cumulative permanent operation adverse impacts to the setting of the	Moderate Adverse	Large Adverse	Urban and Landscape Design Management Plan	Large Adverse	Establishment of a Cultural Heritage fund and trust be

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	northern ranges from ASH and the subsequent urban intensification of the lands below					established for the benefit of TKāM and NWōK with regard to the conservation, interpretation, and education regarding taonga within the Study Area. Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)
Te Ara Pukewhakaratarara	Direct and cumulative permanent construction adverse impacts arising from Don Buck Rd further earthworks and modification of Pukewhakaratarara Ridgeline	Negligible Adverse	Minor Adverse	Nil	Minor Adverse	Cultural design plan to recognise the site
Pukewhakaratarara	Direct and cumulative permanent construction adverse impacts arising from Don Buck Rd further earthworks and modification of Pukewhakaratarara	Minor Adverse	Moderate Adverse	Nil	Moderate Adverse	Minimise earthworks Cultural design plan to recognise the site Enter the site in Schedule 12 as a Māori Site of Significance

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
Wai ō Pareira Kāinga	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Mānutewhau Kāinga	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Rawawaru Kāinga	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Ngongetepara Kāinga	No change to negligible adverse direct and cumulative effects from earthworks and unlocking further urban intensification	Negligible Adverse	Minor Adverse	Nil	Minor Adverse	Cultural design
Te Ahipekapeka	Direct and cumulative permanent construction and operation adverse impacts arising from Coatesville-Riverhead HWY further earthworks and impervious surface	Negligible Adverse	Minor Adverse	Nil	Minor Adverse	Cultural design plan to recognise the site
Turanga ō Kawau	No change	Neutral	Neutral	Nil	Neutral	Nil
Maraeroa	No change	Neutral	Neutral	Nil	Neutral	Nil
Pītoitoi Kāinga	No change	Neutral	Neutral	Nil	Neutral	Nil
Taurangatira	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Tōangaroa	No change	Neutral	Neutral	Nil	Neutral	Cultural design
Wai paki i rape ō Ruarangi	Direct temporary construction adverse impacts from: Main Rd construction compound near east side of existing SH16 bridge	Major Adverse	Large Adverse	Nil	Large Adverse	Cultural design

Name	Summary of impact	Level of Impact	Significance of effect	Proposed mitigation	Residual effect	Offsetting
	Main Rd/RTC Wetland 2 in close proximity to awa Works in awa for SH16 temporary road realignment, deconstruction of existing bridge, and construction of new bridge					
Tuuraki awatea	No change to negligible adverse setting and temporary down-stream impacts.	Negligible Adverse	Minor Adverse	Refer to 'Wai Māori' mitigations above	Neutral	Nil
Pukeharakeke	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Ihumatāo	No change to negligible adverse cumulative effects from unlocking further urban intensification	Neutral	Neutral	Nil	Neutral	Nil
Te Patumāhoe Kāinga	No change	Neutral	Neutral	Nil	Neutral	Nil
Kahutōpuni	No change	Neutral	Neutral	Nil	Neutral	Nil
Te Ara Rimu	No change	Neutral	Neutral	Nil	Neutral	Nil
Waimauku	No change to negligible adverse cumulative effects from unlocking further urban intensification within a flood-prone area	Negligible Adverse	Minor Adverse	Nil	Minor Adverse	Permanent exclusion of urban intensification (Rural Zone) west of ASH and low density east of ASH (CSL Zone)
Taumata	No change to negligible adverse setting impacts.	Neutral	Neutral	Nil	Neutral	Nil
Kāhukurī	No change	Neutral	Neutral	Nil	Neutral	Nil
Treaty Settlement Land	No change	Neutral	Neutral	Nil	Neutral	Nil

Table 4: Summary of Cultural Effects

Measures	Count
Significance of Effect ::	
Neutral	25
Negligible Beneficial	0
Minor Beneficial	1*
Moderate Beneficial	1*
Large Beneficial	0
Negligible Adverse	3
Minor Adverse	15
Moderate Adverse	3
Large Adverse	5

*Beneficial impacts were noted for the non-ASH elements in terms of landscape and water assuming all mitigations and offsets implemented, but overall (with ASH) the impact was adverse.

CONCLUSION

The North West Project proposes to upgrade and develop new sections of the local and strategic transport network extending from Hobsonville/Whenuapai through Westgate and Brigham Creek to Kumeū, Taupaki and Waimauku. A significant element of the project is the Alternative State Highway (ASH) from Brigham Creek to western Huapai. The project aims to support urban growth in the area and to provide people with genuine travel choices, to address climate change by achieving transformative mode shift, and to address transport safety issues. The project sits within and across an important cultural landscape at the crossroads between the Hukurangi, Waitematā, and Kaipara Valley takiwa. It is the northern part of Te Kawerau ā Maki's heartland and contains a number of significant cultural sites and resources from our most ancient traditions through to our major Treaty settlement redress. Sited between Nga Rau Pou ā Maki (the Waitākere Ranges) and Rangitōpuni (Riverhead Forest) on the alluvial plains of the Kumeū and Kaipara valleys, the project covers an area of numerous streams and the most productive soils in the northern half of the Auckland region. The valley is also protected by the taniwha Tangihua.

This CIA identified a total of 51 cultural sites and resources, ranging in relative value from low to predominantly high, and encompassing productive soil, rivers, landmarks, sacred sites, historical sites, traditional walking routes, and flora and fauna. The project was assessed against these sites and resources resulting in the documenting of eight significant adverse effects, 15 minor adverse effects, three negligible adverse effects, one potential significant beneficial effect*, one minor beneficial effect*, and 25 neutral effects. Where adverse effects were identified offsets (or further mitigation) were suggested. The significant adverse effects relate to the removal of productive topsoil, impacts to fresh water (including the taniwha), impacts to the Kumeū River (including the taniwha), impacts to fish species, setting impacts to Nga Rau Pou ā Maki, impacts to Pukewhakatara, impacts to Wai paki i rape ō Ruarangi, and impacts to the cultural landscape.

While some of the cumulative impacts identified and measured, in particular future urban intensification, cannot be tied singularly to the project, it is reasonable to include them in this CIA given the strategic scope of the project and its aspirations to unlock urban development and support urban growth. Many harms can be mitigated to some degree or offset or compensated. However, at a strategic level, it is reasonable to question the wisdom of supporting urban growth in a flood prone catchment that holds the most regionally significant topsoils in northern Auckland, and that (through the ASH) places high risk of urbanising the fringes of the northern Waitākere Ranges. The destruction of a food bowl for the benefit of more concrete warehouses seems to be the opposite of sustainability or forward planning. The removal of highly organic topsoils at such a scale certainly is at odds with the project aim of addressing climate change. It is the role of iwi to be kaitiaki of the mauri of the resources in their rohe for the inter-generational benefit of all. The sensitivity of the receiving environment here is witnessed by the fact we hold there to be a taniwha protecting it. Te Kawerau ā Maki has maintained for half a decade now that the Crown (in all its varying forms including Council and NZTA) would be better off working with us to plan for growth at Riverhead where the soils are far less productive and flood prone and we have the scale of land to strategically plan for inter-generational wellbeing. It is frustrating to watch more of our taonga risk disappearing due to the acts of the Crown.

Due to the sensitivities of the landscape, we are not supportive of the ASH component of the project. We would prefer that the existing SH16 corridor be widened. This is a choice between existing homes and the environment. We choose to support te taiao. Should it (the ASH) proceed against our opposition and advice we have suggested limits and offsets to what that might look like. Our preference is for the Crown to work with Te Kawerau ā Maki on strategic and inter-generational growth in ways where we both benefit and where the environmental impacts are lower.

RECOMMENDATIONS

Table 5: Recommendations and outcome alignment

No.	Recommendation	TKaM Strategic Value alignment	IMP policy alignment	Legislative alignment	AUP policy alignment	Other policy alignment
1	Te Kawerau ā Maki do not oppose the proposal, with the exception of the ASH component which we do oppose (and prefer SH16 be widened instead), otherwise provided that the mitigations and offsets discussed are incorporated – we desire notice of the outcome of the application and the final designation conditions	Mana Motuhake				
2	Undertake further discussions and work to enable TKaM participation in design, construction and operation phases of the project e.g. through project board position and/or MOU and including procurement or training opportunities	Mana Motuhake, Kaitiakitanga, Whanaungatanga, Auaha	2.2 (integration of tikanga)	RMA 6(e), 7(a), 8	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga), B6.3.2(3) (AEE to include CIA), B6.3.2(6) (decisions to reflect cultural impacts), B6.5.2(7) (cultural landscapes in structure plans), B6.5.2(9) (cultural design of infrastructure)	UNDRIP, NPSFW, NZCPS, ICOMOS
3	Avoid realignment of the Kumeū River as a matter of spiritual integrity	Kaitiakitanga	2.2 (integration of tikanga), 4.2.2 (cultural heritage)	RMA 6(e), 7(a)	B6.3.2(2) (integrate tikanga), B6.3.2(6) (decisions to reflect cultural impacts)	UNDRIP, ICOMOS, NPSFW
4	Should the ASH proceed against our advice, permanent exclusion of urban intensification (Rural Zone to remain) west of ASH and low density east of ASH (CSL Zone) should be provided	Kaitiakitanga	2.2 (integration of tikanga), 4.1.2 (cumulative effects),	RMA 6(e), 7(a), 8	B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga),	UNDRIP

No.	Recommendation	TKaM Strategic Value alignment	IMP policy alignment	Legislative alignment	AUP policy alignment	Other policy alignment
			4.2.2 (cultural heritage), 4.7.2 (landscape)		B6.3.2(6) (decisions to reflect cultural impacts), B6.5.2(7) (cultural landscapes in structure plans)	
5	Avoid where possible significant earthworks on the areas of cultural value (sites) identified in this report, and where not possible, work with TKaM on design and construction monitoring that incorporates our tikanga	Kaitiakitanga	2.2 (integration of tikanga), 4.2.2 (cultural heritage), 4.3.2 (koiwi), 4.9.2 (cultural design)	RMA 6(e), 7(a), 8; HNZPTA s45	B6.2.2(1) (participation), B6.3.2(2) (integrate tikanga), B6.5.2(9) (cultural design of infrastructure), E11 and E12 rules (ADP)	UNDRIP, ICOMOS
6	Cultural Heritage and Offset fund and trust be established for the benefit of TKaM and NWōK with regard to the conservation, interpretation, and education regarding taonga within the Study Area. The budget for this fund will need to be negotiated but must be meaningful	Kaitiakitanga	2.2 (integration of tikanga), 4.2.2 (cultural heritage), 4.9.2 (cultural design)	RMA 6(e)	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga), B6.5.2(7) (cultural landscapes in structure plans), B6.5.2(9) (cultural design of infrastructure)	UNDRIP, ICOMOS
7	Work with TKaM on water sensitive design that incorporates our tikanga, noting the importance of not mixing waters and soil and plant filtration, and giving effect to Mana ō te Wai, and including elements such as riparian planning buffers and long-term mauri monitoring	Kaitiakitanga, Mātauranga	2.2 (integration of tikanga), 4.4.2 (management of water), 4.5.2 (coastal)	RMA 6(e), 7(a), 8	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga), B6.5.2(9) (cultural design of infrastructure)	UNDRIP, NPSFW, NZCPS

No.	Recommendation	TKaM Strategic Value alignment	IMP policy alignment	Legislative alignment	AUP policy alignment	Other policy alignment
8	Work with TKaM on ecologically sensitive design that incorporates our tikanga, including eco-sourced vegetation, a 100% native plant commitment, habitat enhancement, fish passages, and green corridors, and ensure and ecological offsetting framework is designed in partnership with TKaM	Kaitiakitanga , Mātauranga	2.2 (integration of tikanga), 4.7.2 (landscape), 4.8.2 (flora and fauna), 4.9.2 (cultural design)	RMA 6(e), 7(a), 8	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga)	UNDRIP
9	Develop in conjunction with TKaM an ecological restoration and management plan for the wetlands and streams that removes pests, monitors water, biodiversity and mauri quality including with cultural indicators, and includes enhancements such as native riparian planting	Kaitiakitanga	2.2 (integration of tikanga), 4.4.2 (management of water), 4.7.2 (landscape), 4.8.2 (flora and fauna), 4.9.2 (cultural design)	RMA 6(e), 7(a), 8	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga)	UNDRIP, NPSFW, NZCPS
10	Work with TKaM on a darkness sensitive design that incorporates our tikanga, and limits the degree of light pollution generated	Kaitiakitanga	2.2 (integration of tikanga), 4.1.2 (cumulative effects), 4.7.2 (landscape)	RMA 6(e), 7(a)	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga)	UNDRIP, NZCPS
11	Work with TKaM on cultural design incorporation and interventions, such as ensuring inter- and intra- cultural site visibility and settings is maintained, undertaking place naming and educational and physical (artistic) interpretation of cultural sites and history, and opportunity to input to the built form of elements of the project (e.g. bridges)	Kaitiakitanga , Auaha, Mātauranga	2.2 (integration of tikanga), 4.1.2 (cumulative effects), 4.2.2 (cultural heritage), 4.7.2 (landscape), 4.9.2 (cultural design)	RMA 6(e)	B6.2.2(1) (participation), B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga), B6.5.2(9) (cultural design of infrastructure)	ICOMOS
12	Actively support aspirations of TKaM to enter cultural sites within the Study Area onto the Auckland Council schedule of Sites of Significance to Mana Whenua, potentially through a private plan change	Kaitiakitanga	4.2.2 (cultural heritage), 4.7.2 (landscape)	RMA 6(e), 7(a), 8	B6.3.2(1) (identify values), B6.5.2(7) (cultural landscapes in structure plans/plan changes)	ICOMOS

No.	Recommendation	TKaM Strategic Value alignment	IMP policy alignment	Legislative alignment	AUP policy alignment	Other policy alignment
13	Develop and implement a Topsoil Conservation Plan	Kaitiakitanga	2.2 (integration of tikanga), 4.1.2 (cumulative effects)	RMA 6(e), 7(a), 8	B6.3.2(1) (identify values) B6.3.2(2) (integrate tikanga), B6.3.2(6) (decisions to reflect cultural impacts), B6.5.2(7) (cultural landscapes in structure plans), B6.5.2(9) (cultural design of infrastructure)	UNDRIP
14	In addition to the ecological management plan and topsoil management plan, TKaM should co-develop an urban/landscape design management plan and heritage management plan	Kaitiakitanga	4.2.2 (cultural heritage), 4.7.2 (landscape)	RMA 6(e), 7(a), 8	B6.2.2(1) (participation), B6.3.2(2) (integrate tikanga), B6.3.2(6) (decisions to reflect cultural impacts), B6.5.2(7) (cultural landscapes in structure plans)	UNDRIP, ICOMOS
15	Cultural monitoring, including pre-works cultural inductions, and the monitoring of cultural sites and resources for the construction period of the project, should be resourced at the cost of the Client	Kaitiakitanga, Whanau Mātauranga Māori	2.2 (integration of tikanga)	RMA 6(e), 7(a)	B6.2.2(1) (participation), B6.3.2(2) (integrate tikanga)	UNDRIP
16	Any lands within the designation that NZTA may wish to dispose of in the future should first be offered to TKaM to provide opportunity to re-acquire whenua alienated from TKaM	Mana Motuhake				

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