THE PLANNING COLLECTIVE

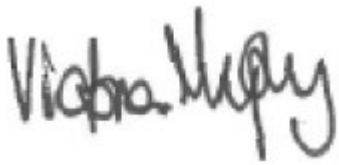
Application for Resource Consent

to construct, operate and maintain a pathway for pedestrians, to be known as Te Ara Tipuna (Stage 1), from Gisborne around the coast to Ōpōtiki

Applicant Name: Te Ara Tipuna Charitable Trust

Date: Updated November 2024

This planning assessment has been prepared by The Planning Collective Limited and forms part of the application for resource consent on behalf of Te Ara Tipuna Charitable Trust to construct, operate and maintain a pathway for pedestrians, to be known as Te Ara Tipuna (Stage 1) from Gisborne around the coast to Ōpōtiki.
(TPC Reference: TAT 168-22).



This report has been prepared by: _____

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Dated: 13 November 2024

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Dated: 13 November2024

"The curves within the circle symbol of our logo are a depiction of the shape the Mahurangi River takes as it weaves its way through Warkworth. This was chosen to illustrate the whenua and landscape of the town that The Planning Collective works so closely with."

28 July 2023

Tena koutou i runga i nga ahuatanga o te wa, me nga manaakitanga a Matariki e haere ake nei, mo te tau hou.

As the world grapples with challenges of poverty, pollution, polarization, of war, racism, and climate change, and their impacts on Aotearoa, we look to secure our homes, lands, roads, waterways, our connection, communities and culture. Our identity.

Te Ara Tipuna is a piece of our shared puzzle of how we might do this here at home.

Te Ara Tipuna is, at one level, an idea and a prayer to restore a way of life inherited from our forebears, made fit for modern times, and sustainable into the future. At another, it is simply much needed infrastructure – a network of accessways providing a critical option for routine (and emergency) movement through the takiwa.

At yet another level, Te Ara Tipuna is a motivation for collecting, protecting, learning and teaching our stories, our songs, our systems and structures, our distinctive ways of seeing and being. Also, Te Ara Tipuna is the provision of access and opportunity for local level enterprise, for the sharing and showcasing of cultural wealth, for manuhiri and manaakitanga, and for material wellbeing. And, Te Ara Tipuna will require us, and rely upon us, to be practiced and perpetual kaitieki guardians of our whenua, whanau, whakapapa – our taiao, and our ao whanui.

This initiative has been conceived as a physical realisation of cultural connection. While it has been sponsored and led by Te Runanganui o Ngati Porou, in partnership and resourced by Te Puni Kokiri, it has been developed as a cultural embrace - of the iwi and hapu who are linked through whakapapa and share boundaries from Te Toka a Taiau (Ngati Porou) to Tarakeha (Te Whakatohea). It is in the spirit of an open invitation, respecting the mana of each to make their own decision, in their own time, as to whether to take up the opportunity.

Ultimately, however, it is the right and responsibility, the decision of landowners, shareholders, trustees, over whose property it is proposed Te Ara Tipuna passes.

Along with the high-level proposal for the mapped route it is further proposed that a device, akin to a passport, will be developed for users of Te Ara Tipuna. This 'passport', and an undertaking to abide by its settings, would apply to the entire journey, informed by the specific requirements negotiated with landowners, the hapu and iwi of that rohe. It is intended that the 'passport' provide for a principled commitment of safe and welcome passage, by both guest and host alike.

We are excited about the possibilities of Te Ara Tipuna. We trust that you are too!

Kia tau te ia o te Mauri kia tatau.

S. T. Parata

Sir Selwyn Tanetoa Parata KNZM

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Abbreviations

Abbreviation	Full Description
AEE	Assessment of Effects on the Environment
Application	This Resource Consent Application as described in Section 1 and 4
BOPRC	Bay of Plenty Regional Council
CIA	Cultural Impact Assessment
CMA	Coastal Marine Area, as defined in section 2 of the RMA
CMP	Contruction Management Plan
EMP	Ecological Management Plan
GDC	Gisborne District Council
HAIL	Hazardous Activities and Industries List 2011
LMP	Landscape Management Plan
LVA	Landscape and Visual Assessment
MACAA	Marine and Coastal Area (Takutai Moana) Act 2011
NES	National Environmental Standard
NPS	National Policy Statement
NZCPS	New Zealand Coastal Policy Statement 2010
ODC	Ōpōtiki District Council
RCA	Roading Controlling Authorities
RMA	Resource Management Act 1991
RoT	Record of Title
SIA	Social Impact Assessment
SSA	Safe System Audit
Stage 1 (the Proposal)	The pedestrian track is Stage 1 of Te Ara Tipuna and is the subject of this resource consent application.
Stage 2	The cycling and horse trekking tracks of Te Ara Tipuna. This is a future stage and not the subject of this resource consent application.
Te Ara Tipuna (the Project)	Working title of this multi-layered project, literally meaning “the ways of our forebears.” The long-term vision is a project to build and maintain the infrastructure of accessways for pedestrians, cyclists, and horse trekkers; local commuters, visitors, and whole-of-journey hikers, bikers, and riders.
TIA	Traffic Impact Assessment

1. Application Details

Applicant	:	Te Ara Tipuna Charitable Trust
Site Address	:	Various – Gisborne to Ōpōtiki – Refer **Appendix 2**
Legal Description	:	Various – Gisborne to Ōpōtiki – Refer **Appendix 2**
Records of Title	:	Various – Gisborne to Ōpōtiki – Refer **Appendix 2**
Area of Site	:	Various – Gisborne to Ōpōtiki – Refer **Appendix 2**
Type of Consent	:	District and Regional Land use Consent s9(2) and s9(3), Use of Beds of River s13(2), Discharge consent s15(2A), Works in the Coastal Marine Area s12(1)
Consent Sought	:	Construct, operate and maintain a pedestrian track, to be known as Te Ara Tipuna – Stage 1, from Gisborne to Ōpōtiki
Zoning	:	Various – Gisborne to Ōpōtiki – Refer **Appendix 2**
Overall Activity Status	:	Tairāwhiti Resource Management Plan : Discretionary Bay of Plenty Regional Natural Resources Plan: Discretionary Ōpōtiki District Plan: Discretionary
Additional RMA Consents Required:	:	If at the detailed design phase there are additional consents that are triggered, those consents will be applied for at that point in time.

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2. Description of Proposal

2.1 Te Ara Tipuna

Te Ara Tipuna, the Project, is the working title of this multi-layered project, literally meaning "the ways of our forebears." The long-term vision is a project to build and maintain the infrastructure of accessways for pedestrians, cyclists, and horse trekkers; local commuters, visitors, and whole-of-journey hikers, bikers, and riders. Te Ara Tipuna is to be implemented in stages. The Proposal / Stage 1 that is the subject of this Resource Consent Application (Application) is the first stage of that vision; being a pedestrian walking track. In the future the cyclist and horse tracks (Stage 2) will be advanced via future resource consent applications.

As with all kaupapa, Te Ara Tipuna has layers of meaning. And it anticipates further layers of growth and development.

First, Te Ara Tipuna is an evocation of the ways of our ancestors. The way they practiced life and community; the way they interacted with the physical and metaphysical environment; the ways they used to move between whanau and hapu, undertake activities, and connect with each other; the way they were in the world, in their time, and the cultural legacy they have left.

Second, Te Ara Tipuna is intended to restore connectivity and momentum in the daily life of those who live and work in rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday aitieki of the ara and the people who traverse them, locals, and manuhiri alike.

Third, Te Ara Tipuna, is the overall description of a proposed network of ara/tracks, connecting existing tracks, old and new, reviving unused tracks, defunct paper roads, and encroachments, along with new mapping to create a continuous journey from one end of Te Tairawhiti to the other, through Ngāti Porou, Te Whānau-ā-Apanui, Ngai Tai ki Torere and Te Whakatōhea.

Fourth, Te Ara Tipuna, provides the opportunity for a distinct tourism experience in the heart of Te Tairawhiti, on foot, cycle, and horseback. It opens up to a part of Aotearoa New Zealand where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai, and to people who know how to hunt, dive, fish, cook, haka, sing, tell long stories, sly jokes, and deliver fast and furious one-liners.

Fifth, Te Ara Tipuna can offer a unique manaaki experience – iwi to kiwi - a warm welcome to fellow New Zealanders to walk into a marae, prepare kai in the kauta, eat and wash dishes, yarn by the fire, sleep in the wharenui, and head off into the day and to the next equally proud hapu along the ara.

The Proposal (i.e. Stage 1 of the Project) will provide a 500km pedestrian track stretching from the southern boundary of Ngāti Porou at Te Toka-a-Taiau through the rohe of Te Whānau-ā-Apanui, Ngai Tai ki Torere, and ending at Tarakeha, in Te Whakatōhea.

As indicated above, in Stage 1, the focus is on the foundation layer of a pedestrian track to create and support the ara/accessways, that together make up Te Ara Tipuna network, and, subsequently to support the wider Kaupapa. This Application seeks consent for the pedestrian track as Stage 1 of the Project. The cycle and horse trekking tracks are part of the longer-term visions, Stage 2, for the Project and as and when they are able to be advanced will be the subject of further, separate resource consent applications.

This Project is designed to enrich the cultural, social, and economic status of the East Coast while providing incentive for entrepreneurial activity upon completion and employment during and after construction. Through the rohe of the four Iwi bracketed by Gisborne and Ōpōtiki, the Project is planned to carve a path for future generations, while treading lightly on the land and along the coastline.

Stage 1 will stretch from Gisborne to Ōpōtiki and will provide connection to marae and significant cultural and environmental landmarks, along with opportunities for economic development and local entrepreneurial endeavours. Although the primary purpose of the development of Te Ara Tipuna is to restore connectivity, particularly since recent weather events have further deteriorated State Highway 35, it is also expected to provide opportunities for local practical kaitiakitanga, local curricula for teaching and learning, protecting and conserving and for unique tourism experiences that would be unrivalled anywhere in the world. This part of Aotearoa is home to rich cultural heritage and practices, stunning landscapes of mountains, rivers, beaches and bush and has proud traditions of diving, hunting, fishing, paddling and haka. Supporting local people to create businesses and to financially support their whanau by sharing their knowledge, stories and places of recreation will be a by-product of Te Ara Tipuna. The Proposal has been designed to ensure minimal impact on the environment, with the avoidance of adverse effects as a first principle.

The client for the initiation of this multi-layered, multi-year Project is Te Rūnanganui o Ngāti Porou (TRONPnui), led by Hekia Parata as Special Advisor to the Rūnanganui. Given the planned scale of the Project, and the different interests over time, a separate legal entity, Te Ara Tipuna Charitable Trust, has been formed and is the applicant. Going forward, the Trust will be responsible for the overall development and management of Te Ara Tipuna.

The letter from the TRONPnui Chairperson, Sir Selwyn Tanetoa Parata, reflects the invitation to, and the potential for the landowner and iwi partnerships necessary to complete the entire proposed ara tipuna.

2.2 The Site

The region where the track is proposed is known as Te Tairawhiti or 'the tide where the sun rises', more commonly known as the East Coast. Tairawhiti is the first region in the world to see the sunrise and it holds a huge amount of Māori culture and historic significance.

In its 500km entirety, Te Ara Tipuna traverses the rohe of Ngāti Porou, Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatōhea. It will engage with some of the most beautiful, rugged, and isolated land and waterways of Aotearoa New Zealand; experiencing cultural icons of marae, mountains, rivers, oceans and the unique character of its local people and communities.

The Project will build and maintain accessway infrastructure along a proposed tracks of 500kms, from Te Toka-a-Taiau near Gisborne to Tarakeha near Ōpōtiki. An overview map of the Project is in **Figure 1** below:

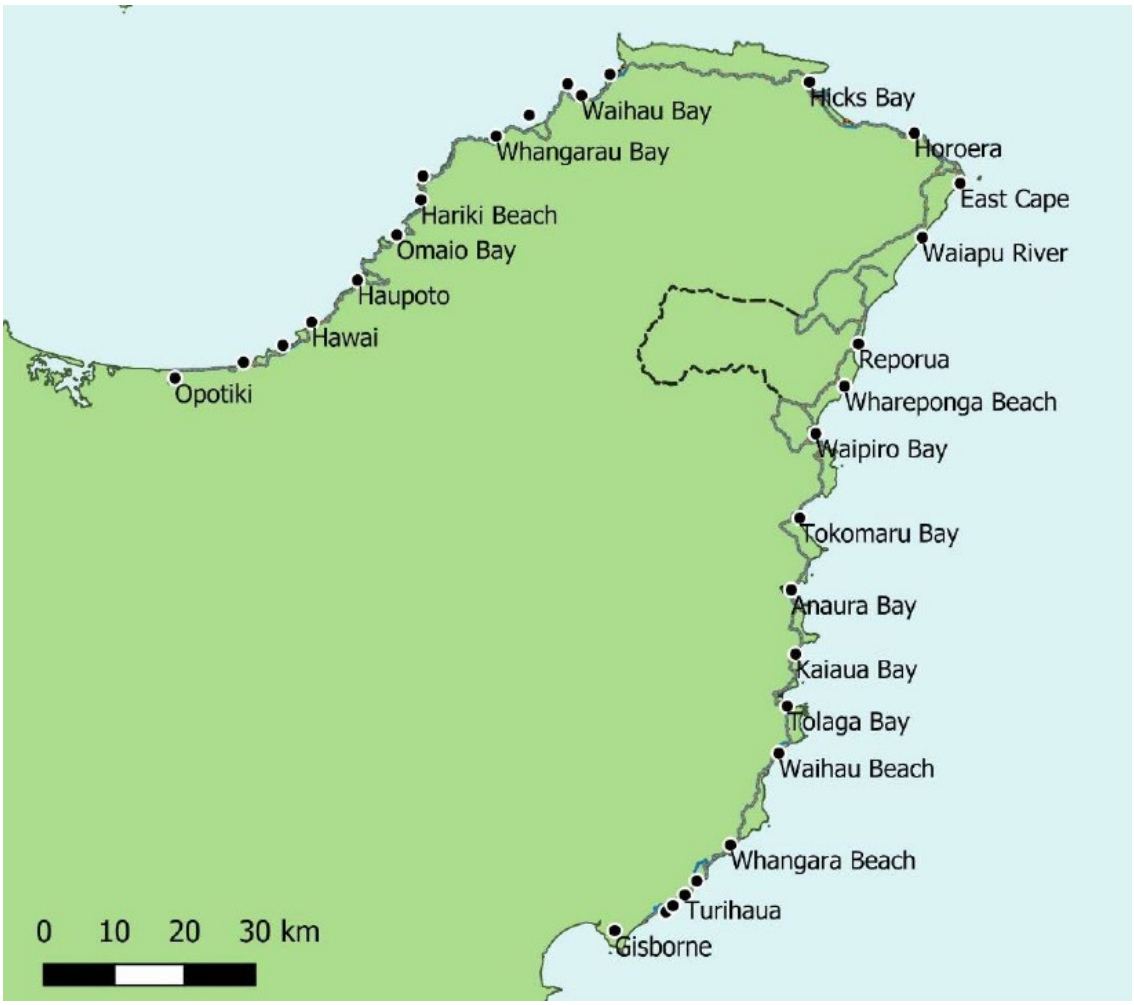


Figure 1 – Overview Map

The network of tracks will connect SH35, public land, whenua Māori, private land and reserves to create a continuous journey around the coast through the respective Iwi rohe. The track begins near Te Toka-

a-Taiau, in Makorori, a beach community on the outskirts of Turanganui-a-Kiwa Gisborne which is the major urban centre within Tairawhiti and ends at Tarakeha, near the coastal community of Ōpōtiki, in the Eastern Bay of Plenty. The pedestrian track has an additional option – the Hikurangi Loop, which walks around the culturally significant Hikurangi Maunga. See the track distances schedule within Appendix 4.

Stage 1 can be broken down into 26 walking days, plus five additional walking days if one chooses to complete the Hikurangi Loop. It is estimated it would take 29 days to complete the entire journey by foot. By walking the Hikurangi Loop, the user would miss days 9 and 10 (Whareponga and Reporua Beach).

Each day varies in difficulty, with some days longer or harder than others. Some walkers may find that they can walk the whole Ara in a shorter timeframe by joining some of the shorter days together. Some people may take longer than 29 days and spend extra time in areas they are enjoying, or they may require rest days.

The track could be used in a myriad of ways. While some users may want to complete the whole track in one attempt, others may choose to attempt a couple of sections. Others may do the whole track, but over a prolonged time period. The opportunities for self-designed, unique experiences are endless.

2.3 The Track

Stage 1 of Te Ara Tipuna will provide a 500km pedestrian track for a continuous walking track in either direction between Makorori headland and Ōpōtiki in the Gisborne and Ōpōtiki districts. The effect of its presence is to be as natural, unobtrusive and harmonious with its location as possible.

The track is planned to sit lightly with the land and coastlines. The vast proportion of the track (90 percent – approximately 450kms) will be following low key consistent wayfaring signage across paddocks, over hills, and along beaches in their natural state. The remaining (10 percent, approximately 50kms) portion will have some safety and protective measures built into the landscape.

In many locations the track will be aligned with existing recreation tracks, beach areas above high tide, farm tracks and unformed legal (paper) roads. In other areas it will be located alongside SH35 and formed local roads. In places the route crosses through whenua Māori and private land, as negotiated/to be negotiated with landowners.

The process of confirming the alignment has followed an iterative process with the wider Project Team of effects specialists. This included further consideration following successive cyclones and flooding events which have closed SH35 and local roads, for weeks on end. The design report contained within Appendix 6 outlines the process behind the track location and formation.

The design of the track is provided at a high level, to allow for refinements in the detailed design phase in response to specific site/context issues, and to provide for further input to the design as it progresses from Iwi, hapū, landowners and trustees, and the wider Te Ara Tipuna community.

The track will involve various types of construction, depending on the local conditions, including boardwalks, simple wooden tracks, gravel tracks and way findings through paddocks. There will also be establishment of toilets and shelters throughout the network to provide amenities for users and potentially the construction of carparks at key points for day or multi-day trips.

The intention of the track is to provide a level of resilience to the East Coast by providing alternative walking access to remote sections where State Highway 35 is prone to closure after significant weather events such as the recent Cyclone Gabrielle event. At this stage, the track between Tokomaru Bay and Ruatoria will be designed as a secondary, emergency walking access route. Te Ara Tipuna has the potential to provide Civil Defence options for access in these emergency events only.

Initially it was proposed to consent and construct the shared pathway for walking, horse riding and cycling track users (Stage 1 and Stage 2) at one time. The reiterative design process and subsequent assessments and management plans provided by the specialists are therefore based on the complete Project. After various discussions with the relevant Councils during the pre-notification phase, a revised approach is now being presented in this Application which only seeks consents related to establishing, maintaining and using a track for pedestrian use only (Stage 1).

During the detailed design phase required for the construction of the pedestrian track (Stage 1), on ground assessments will be completed for the additional track users (Stage 2), which will inform the detailed design, assessment of effects and potential future resource consent application for Stage 2. This approach will allow the very low impact pedestrian track to be established initially, while providing for a process to thoroughly assess and, provide for the Stage 2 via future consenting processes.

2.3.1 Track Type

In aiming to keep with the natural environment and provide an immersive experience for walkers, approximately 90% of the track is proposed to remain relatively untouched with the track composition to emulate that of a farm track.

As outlined in the Construction Management Plan (CMP) and supported by the LMP, the CMP will require consideration of the operational needs and requirements of the track in order to function safely and effectively as a first principle at detailed design stage. If a higher level of service is required due to an identified need or requirement, additional work will be required to construct a path comprised of aggregate, steps, timber, or a widened and improved berm/road shoulder surface. The steps outlined in the management plans will ensure that the effects of any construction will be managed such that effects will be less than minor.

A detailed explanation of track types and their construction and cross sections are provided in the CMP contained in Appendix 7.

2.3.2 Structures

A number of structures will be constructed to provide access across streams/rivers and to provide amenities to sections of the track that are not located in towns. The main structures proposed as part of Stage 1 are detailed below:

2.3.2.1 New Bridges

New bridges are proposed to cross streams along the route, where the track is not able to use an existing bridge, or the stream is considered too deep to cross at the river mouth. For example, at Whangara, see **Figure 2** below:

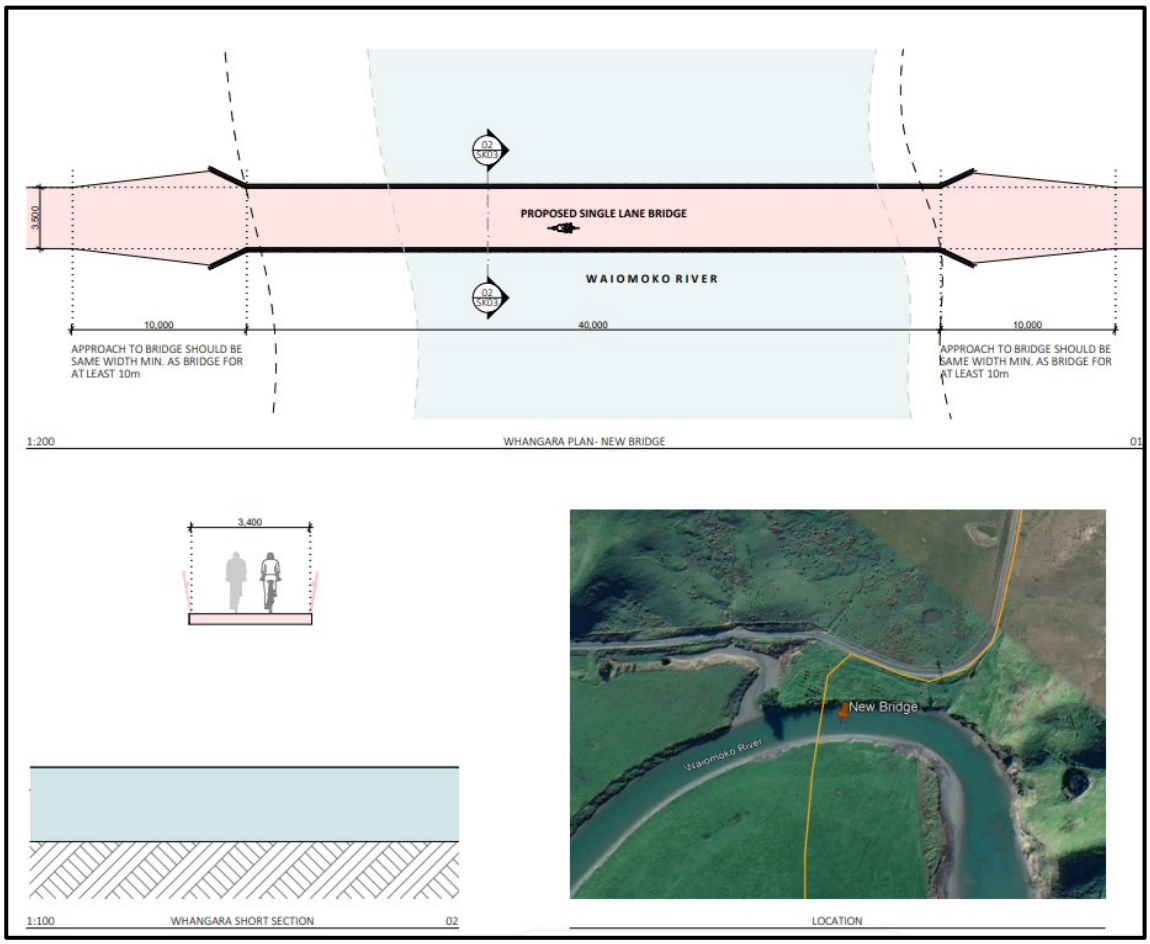


Figure 2 – Indicative Whangara Bridge Design

2.3.2.2 Clip on Bridges

Clip on bridge sections are proposed for existing bridges that do not currently have a foot path or are not wide enough to accommodate pedestrians. For example, over the Pouawa River, see Figure 3 below. Each bridge and clip on will be site specific and subject to detailed design and geotechnical investigations prior to construction.

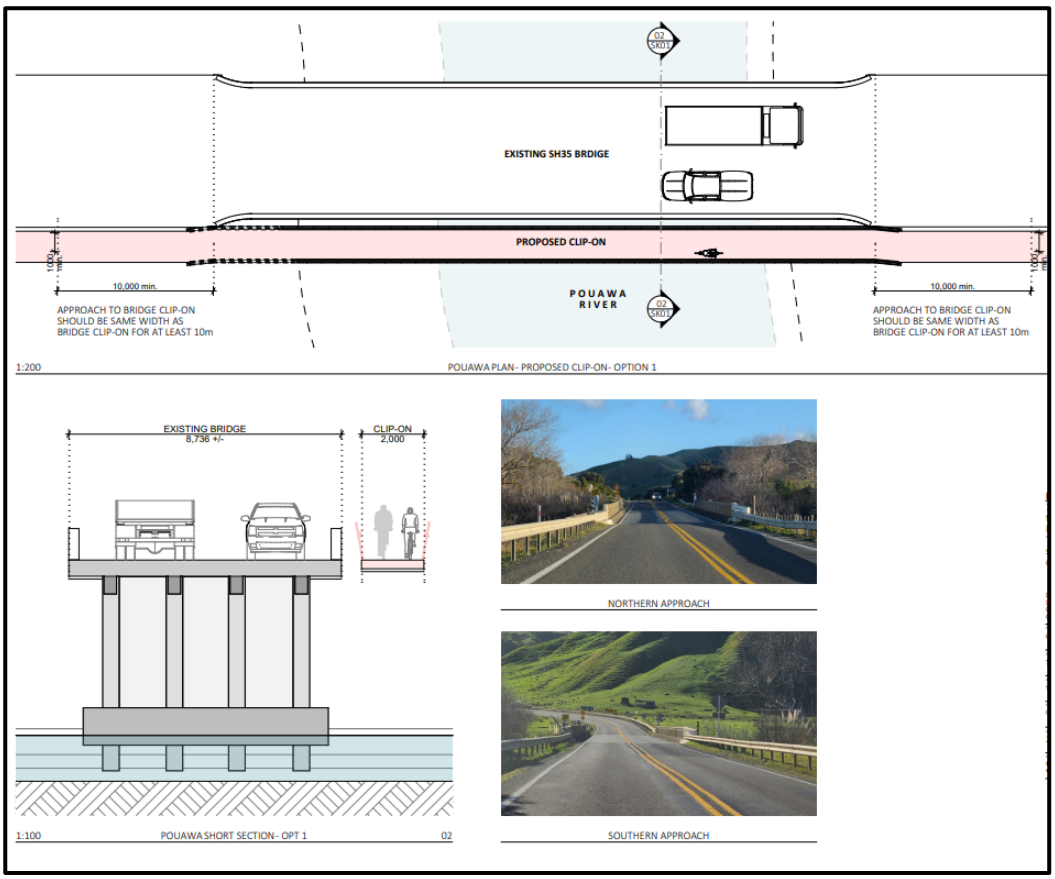


Figure 3 – Indicative Pouawa Bridge Design

Clip on bridges will not be utilised in every scenario. Due to each site being very specific, each would require engineered design.

A second viable option proposed for bridge crossings, and which could be used in place of some clip on bridges is the bridge crossing concept provided in Appendix 7.2 of the CMP. This has been implemented on Blackbridge Road along Dairy Flat Highway in Auckland. The concept utilises a series of static and illuminated signs to warn traffic of active users on or very near the bridge.

Where this second option is to be used, there will be a SLOW DOWN sign installed 300m from the bridge to warn traffic of the need to reduce their speed. This may be accompanied by a speed restriction sign if deemed necessary and approved by the RCA 200m from the bridge there will be two solar panels both of which will supply power to the illuminated sign which will light up when activated by the user. 100m from the bridge there will be a pole which will have a button to press to activate the illuminated sign 200m from the bridge. Once activated, motorists will be instructed that there is a pedestrian near or on the bridge.

The appropriate use of this second option will be determined during the detailed design phase, which will be informed by a safety assessment and input from the relevant RCA.

2.3.2.3 Huts and Shelters

Huts and shelters are proposed to be constructed along sections of the track. At this stage no specific design has been provided on the size and type of such structures, however, it is envisaged that these will involve lightweight timber structures that will be founded on timber poles.

The location of the proposed structures for Stage 1 are indicated on the GIS maps with the final location being determined at the detailed design phase.

Stage 1 includes the consents required for the establishment of these structures. The general permitted activities standards (including setbacks, minimal floor heights) of the underlying zone will complied with and applied to determine the location of the structures.

2.3.2.4 Toilets

Toilets are proposed to be constructed along the track and the size and type of these structures will likely vary from basic toilet structures in isolated areas, to larger toilet blocks in towns. Requirement for geotechnical input will need to be assessed depending on the type and size of the structure at the detailed design phase.

The location of the proposed toilets for Stage 1 are indicated on the GIS maps with the final location being determined at the detailed design phase.

2.4 Implementation

2.4.1 Staging

Stage 1 will be constructed and implemented on a staged basis.

Staging to construct the track is proposed for a number of reasons, including but not limited to the need to obtain funding, obtain landowner approvals, undertake detailed design and the availability of the labour force (noting a priority to use local contractors to undertake all construction).

2.4.2 Earthworks

Earthworks will be kept to a minimum. More extensive earthworks will be required where a compacted aggregate track, lime stabilised track, boardwalk or alternative formed surface will be installed. Removal of topsoil and some subgrade (if required) will be completed prior to backfilling and compacting with the selected clean engineered fill material.

Large cuts of 1 m or more and retaining structures will be avoided where possible, with the natural contours of the land followed.

All earthworks will be conducted in a manner which takes into consideration dust, sediment, and erosion controls. Excavated material will be kept onsite and utilised for landscaping or lost within the contours of the land where possible. Any material that needs to be taken offsite will be transported to an approved facility for disposal.

2.4.3 Stormwater

The track will maintain a level of cross fall (slope) that will allow stormwater flow across the track and towards the nearest drainage channel. During construction, the natural drainage channels will be preserved with any introduced structures allowing flow paths for water to continue to flow at pre-development levels. No existing stormwater flows will be restricted.

Where culverts or drainage facilitating structures are introduced, these will be designed for a 1:100-year AEP event based on the NIWA Hirds 2081-2100 RCP8.5 predicted rainfall probability data. Culverts will be avoided underneath structures that traverse water courses.

2.4.4 Wastewater

All toilets installed are proposed to be compostable. The units are fully contained and do not produce any liquid/solid discharge to the surrounding environment. The location of these toilets shall be such that they are not within any culturally sensitive areas or areas in close proximity to drainage channels or watercourses. Where possible existing infrastructure will be utilised.

Wastewater generated from hut basins/sinks will be appropriately disposed of in septic fields in compliance with local authority guidelines.

2.4.5 Water Supply

Water supply to huts and for any washing facilities will be supplied from onsite storage tanks in remote locations. Mains supply will be utilised where this is accessible.

2.4.6 Vegetation Removal

During the pre-consenting phase, in-depth desktop analyses were undertaken to determine locations where the route passed through sites with high ecological value. The track was realigned to avoid any adverse effects on those significant values where possible. The track has also been realigned to avoid wetlands mapped on the Council internal GIS layers.

The pedestrian track will weave between existing vegetation, preserving indigenous and exotic species where possible.

If existing vegetation is required to be removed, attempts will be made to replant adjacent to the track.

Where vegetation clearance is in close proximity to dwellings, arborists will be engaged (where necessary) to ensure this clearance does not pose any risk to residents or their assets. Close approach permits will be applied for as necessary when working beneath any overhead lines or when excavating near live underground services.

2.5 Operation

It is proposed that a kawa, a code of care, be developed for use of the Project and represented in a device, akin to a passport for users of Te Ara Tipuna. This 'passport', which will include an undertaking to abide by its settings, would apply to the entire journey, informed by the specific requirements negotiated with landowners, the hapū and iwi of that rohe. It is intended that the 'passport' provide for a principled commitment of safe and welcome passage, by both guest and host alike.

Technical experts in the social and cultural impact assessments have referred to the same Kaupapa as 'uru whenua' passport and 'oati' oath or undertaking. They refer to the same operating approach and tool.

3. Planning Assessment

Te Ara Tipuna extends through the Gisborne Region and Bay of Plenty Region and thus the relevant consenting authorities are:

- Gisborne District Council
- Ōpōtiki District Council
- Bay of Plenty Regional Council

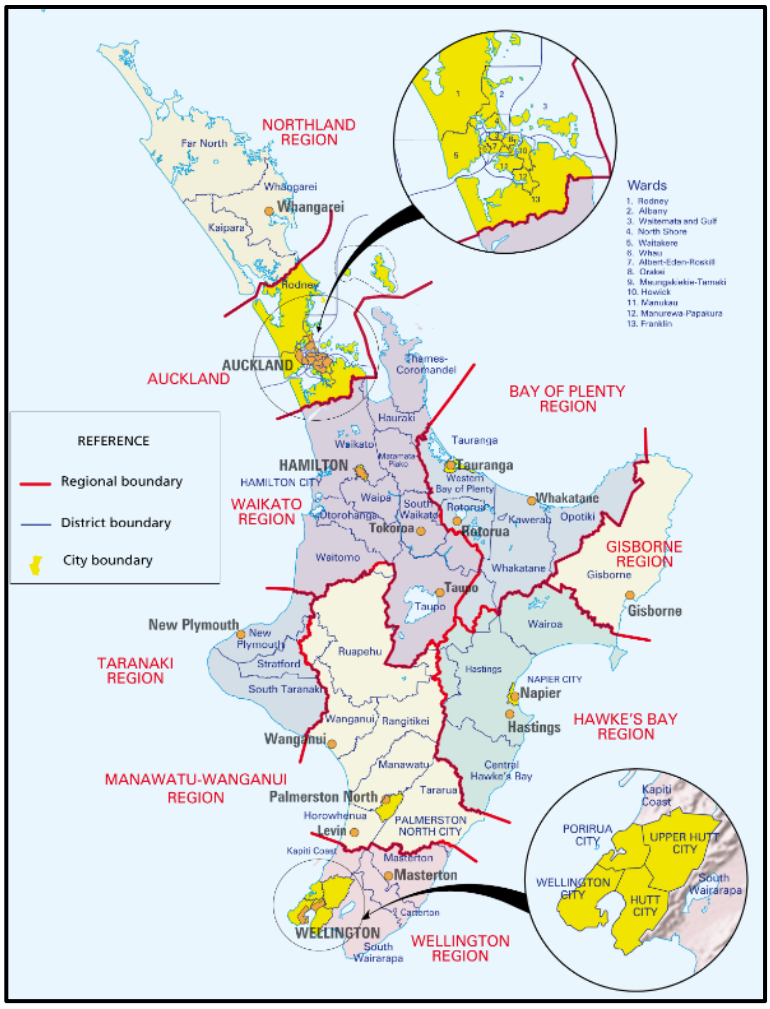


Figure 4 – Relevant Authorities (Source: North-Island-PNG.PNG (2480×3657) (lgnz.co.nz))

Stage 1 needs to be considered under the following district and regional planning documents:

- District Plan - Tairāwhiti Resource Management Plan. This covers all Gisborne District Council's resource management plans, including the regional policy statement, regional coastal plan, regional plan and district plan
- Bay of Plenty Regional Natural Resources Plan
- Ōpōtiki District Plan

An assessment of the Propsoal against the relevant statutory documents has been undertaken and the following reasons for the specific required consents are identified. A detailed analysis of the rules under all the relevant planning documents is provided in **Appendix 3.**

3.1 Tairāwhiti Resource Management Plan

In terms of the provisions of the Tairāwhiti Resource Management Plan (TRMP), Resource Consent is required and sought for the following reasons:

Part D: Area Base Provisions

- Consent is required as a **Discretionary Activity** under Rule DC1.6.1(18) Significant Values Coastal Management Area for new structure (bridge) in the CMA.
- Consent is required as a **Discretionary Activity** under Rule DC2.6.1(21) General Coastal Management Area for new structure (bridge) in the CMA.
- Consent is required as a **Discretionary Activity** under Rule DD4.6.1A(19) for activities not listed as Permitted activities but which comply with the General Standards in the Rural Zone.

C3 Coastal Management

- Consent is required as a **Restricted Discretionary Activity** under Rule C3.14.3(9) for vegetation clearance in the Coastal Environment Overlay.
- Consent is required as a **Restricted Discretionary Activity** under Rule C3.14.3(10) for land disturbance in the Coastal Environment Overlay.
- Consent is required as a **Discretionary Activity** under Rule 3.14.3(13) for vegetation clearance, land disturbance and structures within 200m of MHWS.

C6 Freshwater

- Consent is required as a **Discretionary Activity** under Rule C6.2.12(7) for discharge of solids (clean material) in areas that with will be within 20m of G15 Scheduled Waterbodies or significant vegetation/habitat.
- Consent is required as a **Restricted Discretionary Activity** under Rule C6.3.2(16) for placement of culverts in larger catchments.
- Consent is required as a **Discretionary Activity** under Rule C6.3.2(18) for erection of any structure (bridges) in the bed of a stream which is not otherwise provided for by a rule in the Plan.
- Consent is required as a **Restricted Discretionary Activity** under Rule C6.4.5(16) for vegetation clearance in the Riparian Management Area of Schedule G15 waterbodies.
- Consent is required as a **Restricted Discretionary Activity** under Rule C6.4.5(19) for vegetation clearance in the Riparian Management Area that exceeds $10m^2$ per contiguous 100m of Riparian Management Area.
- Consent is required as a **Restricted Discretionary Activity** under Rule C6.4.5(20) for land disturbance in the Riparian Management Area ($10m^2$ of earth per contiguous 100m).
- Consent is required as a **Restricted Discretionary Activity** under Rule C6.4.5(21) for the erection of new structures or alteration or additions of existing structures in the Riparian Management Area.

C7 Land Management

- Consent is required as a **Controlled Activity** under Rule C7.1.6(7) for ground levelling involving side cutting deeper than 1m in Land Overlay 1.
- Consent is required as a **Controlled Activity** under Rule C7.1.6(16) for side cutting over a contiguous length greater than 100m and the activity causes the disturbance of more than 50m^3 of soil on land in any 3-month period, in Land Overlay 2.
- Consent is required as a **Restricted Discretionary Activity** under Rule C7.1.6(30) for side cutting over a contiguous length greater than 100m and the activity causes the disturbance of more than 10m^3 of soil on land in any 3 month period, in Land Overlay 3.

C9 Natural Heritage

- Consents are required as a **Restricted Discretionary Activity** for Vegetation clearance (Rule C9.1.6(10)), Land Disturbance (Rule 9.1.6(12)), Erection of Structures (Rule 9.1.6(13)) in the Outstanding Landscape Area Overlay.
- Consents are required as a **Restricted Discretionary Activity** for Vegetation clearance (Rule C9.1.6(23)), Land Disturbance (Rule C9.1.6(25)) and Erection of Structures (Rule 9.1.6(26)) in the Protected Management Area Overlay.

C11 General Controls

- Consents are required as a **Discretionary Activity** for signs in Natural Heritage Overlay which are not provided for as Permitted or Restricted Discretionary- All zones, Rule C11.1.6(8), Signs not specifically provided for as Permitted or Restricted Discretionary activities- All Zones, Rule C11.1.6(10), Permanent signs located in Natural Heritage Overlay and are not provided for as Permitted or Restricted Discretionary activities- Rural zone C11.1.11(3) and Signs listed as Permitted in the Rural Zone which do not comply with the rules and are not provided for as Restricted Discretionary Activities (For signs within Road Reserve) C11.1.11(4).

In summary, the Proposal requires assessment as a Discretionary Activity under the TRMP.

3.2 Bay of Plenty Regional Natural Resources Plan

In terms of the provisions of the Bay of Plenty Regional Natural Resources Plan (RNRP), Resource Consent is required and sought for the following reasons:

Chapter 5- Land Management

- Consent is required as a **Restricted Discretionary Activity** under Rule LM R3 (Rule 1B) for disturbance of land and soil as a result of earthworks in Riparian Management Zone (General) for stream crossings not meeting the permitted volumes and/or for exposing 500m^2 and 500m^3 excluding stream crossings.
- Consent is required as a **Discretionary Activity** under Rule LM R4 (Rule 1C) for land and soil disturbance as a result of earthworks in the Coastal Land between 0-50m metres of the Coastal Marine Area (CMA) on Sand Dune Country, Coastal land between 0-20 metres of the CMA on the Coastal Margin, earthworks in the Coastal Margin between 0-20 horizontal metres as measured from the CMA on the edge of an estuary, harbour or the open rocky coast, Land disturbance for river crossings in Riparian Areas of waterbodies in Schedule 1 (over 600m^2) in

each crossing and land disturbance exposing over 400m^2 in area and volume greater than 200m^3, excluding stream crossings.

Chapter 8- Beds of Water Bodies

- Consent is required as a **Restricted Discretionary Activity** under Rule BW (Rule 51c) for extension and upgrade of any existing lawfully authorised structure (Clip on Bridges).
- Consent is required as a **Controlled Activity** under Rule BW R21 (Rule 60A) for the use, erection, alteration of a single span bridge.

In summary, the Proposal requires assessment as a Discretionary Activity under the RNRP.

3.3 Ōpōtiki District Plan

In terms of the provisions of the Ōpōtiki District Plan, Resource Consent is required and sought for the following reasons:

Chapter 8- Rural Zone

- Consent is required as a **Controlled Activity** for the signs in the Rural Zone under Rule 8.6.16.2.
- Consent is required as a **Controlled Activity** for public toilets in the Rural Zone under Rule 8.3.2.1

Chapter 9- Coastal Zone

- Consent is required as a **Controlled Activity** for Community and outdoor recreation activities where any buildings and structures are less than 100m2 in area under Rule 9.3.3.1.1 and for the signs in the Coastal Zone under Rule 9.3.3.1.6. and for public toilets in the Coastal Zone under Rule 9.3.3.1.5

Chapter 10- Coastal Settlement

- Consent is required for a **Controlled Activity** for non-residential activity not specifically provided for, which meets the zone standards, in accordance with Rule 10.3.2.1.7 and for public toilets in the Coastal Settlement zone under Rule 10.3.2.1.4

Chapter 13 Earthworks, Landscapes, Indigenous Vegetation and Habitats

- Consent is required as a **Discretionary Activity** for disturbance of any Pohutukawa tree within all zones.
- Consent is required as a **Discretionary Activity** for indigenous vegetation disturbance within an IBDA A that is within the Coastal Environment Overlay under Rule 13.3.2.4.
- Consent is required as a **Restricted Discretionary Activity** for indigenous vegetation disturbance within an IBDA B that is within the Coastal Environment Overlay under Rule 13.3.2.5.
- Consent is required as a **Controlled Activity** for indigenous vegetation disturbance for construction of new walking and cycling tracks up to 1.5m in the Outstanding Natural Landscapes, Outstanding Natural Features and Coastal Environment Overlay under Rule 13.3.2.12.
- Consent is required as a **Discretionary Activity** for earthworks that do not comply with the standards 13.6.2 in the Outstanding Natural Landscapes and Outstanding Natural Features under Rule 13.3.3.5.

- Consent is required as a **Restricted Discretionary Activity** for earthworks that do not comply with the standards 13.6.2 in the Coastal Environment Overlay and the Coastal Zone under Rule 13.3.3.5

Chapter 18- Natural Hazards

- Consent is required as a **Discretionary Activity** for activities located within Areas Sensitive To Coastal Hazards. It becomes a **Controlled Activity** if the application includes a Coastal Hazard report which concludes that the activity will not result in an increase of adverse effects from coastal hazards under Rule 18.3.3.2.

In summary, the Proposal requires assessment as a Discretionary Activity under the Ōpōtiki District Plan.

3.4 Resource Management (National Environmental Standard for Assessing & Managing Contaminants in Soil to Protect Human Health) Regulations 2011

The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES Contaminated Soils) were gazetted on 13th October 2011 and took effect on 1st January 2012. Council is required by law to implement this NES in accordance with the RMA. The standards are applicable if the land in question is, or has been, or is more likely than not to have been used for a hazardous activity or industry and the applicant proposes to subdivide or change the use of the land, or disturb the soil, or remove or replace a fuel storage system.

The desktop assessment undertaken for the Project has not identified any current or previous activities undertaken in the area of the site that are included on the current version of the Hazardous Activities and Industries List (HAIL). As such, it is considered that there aren't any properties that constitute a 'piece of land' covered under Section 5(7) of the NES, and therefore, the NES is not considered applicable to Stage 1.

Should any HAIL sites be identified during the Stage 1 detailed design process either the track will be relocated to avoid the site or a resource consent will be sought under the NES Contaminated Soil provisions.

3.5 Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (came into force on 3 September 2020)

The Resource Management (National Environmental Standard for Freshwater) Regulations 2020 (NES-FW) came into force on 3 September 2020. The NES-FW set out requirements for carrying out certain activities which pose risks to freshwater and freshwater ecosystems.

In particular, the NES-FW has standards for activities near to or within a natural wetland.

A natural wetland is defined in the National Policy Statement for Freshwater Management as *"a wetland (as defined in the Act) that is not:*

(a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or

(b) a geothermal wetland; or

(c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain derived water pooling".

The NES-FW states vegetation clearance or earthworks within 10m of a wetland requires a non-complying resource consent, any discharge within 100m of a wetland where there is a hydrological connection, and the diversion will change the hydrological function requires non-complying resource consent.

The pedestrian track, and any construction activities, have been located to ensure that they do not trigger any consents under the NES-FW.

Should any wetlands be identified during the detailed design process either the pedestrian track will be relocated to avoid the wetland (or any effects upon it) and any consent triggers under the NES:FW, or a resource consent will be sought under the NES:FW provisions. On this note it should be recognised that the NES-FW provides for wetland utility structures (i.e. boardwalks) as a Restricted Discretionary activity (s42). The definition of the wetland utility structure is provided below:

wetland utility structure—

(a) means a structure placed in or adjacent to a wetland whose purpose, in relation to the wetland, is recreation, education, conservation, restoration, or monitoring; and

(b) for example, includes the following structures that are placed in or adjacent to a wetland for a purpose described in paragraph (a):

- (i) jetties:
- (ii) boardwalks and bridges connecting them:
- (iii) walking tracks and bridges connecting them:
- (iv) signs:
- (v) bird-watching hides:
- (vi) monitoring devices:
- (vii) maimai

3.6 Overall Activity Status

Overall, the activity status of the Proposal is **Discretionary** under the TRMP.

Overall, the activity status of the Proposal is **Discretionary** under the RNRP.

Overall, the activity status of the Proposal is **Discretionary** under the Ōpōtiki District Plan.

All relevant resource consents for Stage 1 have been considered and are applied for within this Application. However, please treat this as a full Application to cover any other aspects of Stage 1 that Council consider requires resource consent.

4. Activity Status Assessment Framework and Approach to Consenting

4.1 Activity Status Assessment Framework

Overall, the Proposal is a Discretionary activity under the TRMP, Ōpōtiki District Plan and RNRP. The matters that require consideration in assessing this Application are set out in section 104 and section 104B of the RMA. These matters include the actual and potential effects of allowing activities on the environment, the relevant objectives and policies of the planning documents, and any other matter that is relevant and necessary to determine the Application. The provisions of section 104 are subject to the matters set out in Part 2 of the RMA.

The following sections of this Application will address the relevant assessment criteria, the actual and potential effects of the Proposal on the environment, the relevant objectives and policies and the relevant provisions of Part 2 of the RMA.

4.2 Approach to Consenting

Given the geographic scale of the Proposal within the Application documentation material we have provided general parameters outlining the scope of work sought by the consents and listed the sites over which Stage 1 will be implemented.

The potential consent triggers have been identified and global consents are sought.

The Application includes a set of proposed conditions (**Appendix 19**) which require the implementation of management plans to manage effects. The proposed conditions prescribe clear objectives and outcomes of each management plan to ensure that effects on the environment will be appropriately managed.

Management Plans have been included for Landscape (**Appendix 13**) and Ecological Values (**Appendix 20**) as well as a Construction (**Appendix 7**) and Historic Heritage Management Plan (**Appendix 22**).

5. Assessment of Effects on the Environment

An assessment of the actual and potential effects generated by the Proposal is outlined below. In accordance with section 95D of the RMA this assessment has disregarded any effects on persons who own or occupy the site and any land adjacent to the site, adverse effects of permitted activities, trade competition and the effects of trade competition and any effects on a person who has given written approval to the application.

5.1 Assessment of Actual and Potential Effects

The effects of the Proposal have been separated into the following categories for assessment:

5.1.1 Positive Effects
5.1.2 Landscape and Visual Effects
5.1.3 Heritage and Archaeological Effects
5.1.4 Cultural Effects
5.1.5 Social Effects
5.1.6 Recreational Effects
5.1.7 Traffic Effects
5.1.8 Ecological Effects
5.1.9 Coastal Hazard Effects
5.1.10 Geotechnical Effects

5.1.1 Positive Effects

There are significant and wide-reaching positive effects that will be generated by the wider Project and mores specifically the current Stage 1 Proposal.

From a cultural perspective, a key positive effect is the opportunity for beneficial cultural impacts. That is because the Proposal has the ability to positively impact cultural identity by supporting Iwi and Hapū, and all East Coast communities, strengthen, sustain, celebrate and share their cultural identity amongst themselves, with other New Zealanders and with international visitors. Educational potential will be realised through the development of local curricula around flora and fauna, land use, social studies and history. Cultural and indigenous experience and exchanges can provide enriching insights and relationships to strengthen the region. There will be opportunities for matauranga and science-based collaborations in a climate challenged and adapting environment, for the restoration and regeneration of biodiversity aligned with Te Ara Tipuna. Together with these possibilities, carefully designed and agreed tourism growth could occur providing possibilities for local enterprise.

Further, Te Ara Tipuna traverses a rich and unique archaeological and cultural landscape. Some places in the landscape are well-known, such as Hikurangi Maunga, but many sites remain obscure or may only be revealed by activities like the Project. Te Ara Tipuna is envisaged as a track that reconnects people (tangata whenua), the Iwi diaspora, with ancestral landscapes through the ability to visit and physically experience the place. Te Ara Tipuna also offers a unique opportunity to raise the awareness of the wider

visitor population to the people, places and past of Te Tairāwhiti and Te Moana a Toi. The track offers the opportunity of access to a number of well-preserved archaeological sites, which will enhance the amenity value of many sites. The visitor experience and understanding of places will also be aided through the provision of interpretation. Careful routing of the track in combination with planting and devices to guide movement will in many cases improve the conservation of sites by enhancing site stability and condition. Mitigation of effects through the provisions of the Heritage New Zealand Pouhere Taonga Act 2014, providing for appropriate archaeological monitoring, investigation and recording will also enhance understanding of the nature and extent of the archaeological resource of Te Tairāwhiti and eastern Te Moana a Toi.

In addition, there are the significant recreational opportunities for those isolated coastal communities; people will be able to access parts of the rohe that are currently inaccessible.

As demonstrated above, there are significant positive effects that will result from Te Ara Tipuna as both a whole and in each of the stages.

5.1.2 Landscape and Visual Effects

A Landscape and Visual Assessment (LVA) and a LMP has been prepared by Isthmus – a copy of such is included within Appendix 13. The evaluation considers the landscape catchments and sequence of destinations within each section of the track for both Stage 1 and Stage 2 and the existing features and patterns that contribute to landscape values including:

a. identified Outstanding Natural Features and Landscapes (ONFL) within the Gisborne and Ōpōtiki Districts with reference to scheduled values.
b. Natural and built/community landscape characteristics including features that contribute to natural character (as natural character includes biophysical and perceptual matters).
c. the visual amenity of the landscapes of Te Ara Tipuna relating to existing views and the likely viewing audiences of the path.
d. planning overlays that are relevant in each district and as they address the biophysical, perceptual, and shared and recognised components of landscape.

The LVA has been conducted alongside development of a LMP. The LMP supports the effects assessment through the methods it sets out to avoid, remedy and mitigate adverse effects of the concept design. The LMP forms part of the consent package.

Te Ara Tipuna follows a varied route, generally close to the coast and within the coastal environment (as identified on Gisborne Regional Council, Ōpōtiki District Council and Bay of Plenty Regional Council planning maps). In many locations it is aligned with existing recreation tracks, beach areas above high tide, farm tracks and unformed legal (paper) roads. In other areas it will be located alongside SH35 and formed local roads. In places the route crosses through whenua Māori and private land, as negotiated/to be negotiated with landowners.

The process of confirming the concept alignment has followed an iterative process with the wider Project Team of effects specialists with avoiding inappropriate adverse effects as a first principle. From a visual and landscape assessment perspective, the path has been located (as far as is possible) to:

a. avoid sensitive environments such as coastal escarpments, areas with indigenous vegetation and dune and wetland environments (including those scheduled in planning documents and identified on high-resolution desktop study).
b. avoid road reserves where the carriageway is confined and there are narrow shoulders or limited open and relatively level areas within the road reserve.
c. avoid the use of unformed legal roads where existing tracks exist and where they are near existing formed roads, and their use would result in indigenous vegetation removal and / or additional cut batters near those already apparent on the legal road.
d. use existing tracks as a preference outside of the road reserve (such as farm tracks - identified on high-resolution photographs and to be confirmed with landowners) as they often follow the natural contours and may not require any other works, other than sightline wayfinding markers.
e. provide for logical egress in and out of existing communities using existing cadastral patterns – to avoid oblique connections, on and off a road reserve alignment particularly near spurs (tight corners for vehicles).

Potential adverse landscape and visual effects of the Proposal (noting that the LVA was based on the entire Project) include:

a. the modification of natural landforms, vegetation (particularly indigenous vegetation), waterways, hydrological patterns, and habitats. Including the height and extent of cut and fill batters.
b. the location and design of the path in all areas of the coastal environment and where they interact with waterbodies and its fit with the existing context, to include low-key, non-roading type components.
c. the nature and extent of any new planting, including for rehabilitation of the footprint or any other required mitigation, and how these fit with naturalised patterns in the environment, including known historical habitat types.
d. the requirement for new bridges and new natural (non-bridged) stream and river crossings including over waterways and their fit with the existing built landscape.
e. the nature and extent of other new structures, and their relative dominance and qualities or fit within the existing context.
f. a loss or reduction to visual or physical access to the coastal environment and waterways for example due to the path structures or proposed rehabilitation planting.

For each geographic section of the Proposal in turn, the assessment describes:

a. the existing environment, as a summary of the baseline evaluation.
b. the relevant aspects of the Proposal which will determine landscape effects in this Proposal.
c. further investigation required at the detailed design stage, to avoid adverse effects through alignment and path type design refinement.
d. a high-level summary assessment of the residual effects (including LMP mitigation) on ONFL (where relevant), natural and built landscape, visual amenity, and natural character with a view to both construction and operational effects.

The LVA concludes:

> *Overall, the findings of this assessment are that the effects of Te Ara Tipuna on ONFL, landscape, visual amenity, and natural character will be appropriate. The Project shaping stages, including iterative review and feedback on landscape matters, have confirmed a concept alignment and options for path types and new structures that bring a focus on avoiding adverse effects and practicable mitigation measures, as included in the LMP. Landscape matters to resolve in the next stages of the design relate to both detailed alignment and response to site, to further reduce adverse effects and provide for greater benefits.*

The LVA and LMP concludes that the landscape and visual effects of the wider Project (i.e. both Stages 1 and 2) are less than minor). Stage 1 which is the subject of this Application requires the least amount of physical works (compared to the Project as a whole) and as such will result in minimal landscape and visual effects.

5.1.3 Heritage and Archaeological Effects

A historic heritage assessment has been prepared by Insitu Archaeological Heritage – a copy of such is included in Appendix 9.

In preparing this assessment Insitu created a shapefile which identified:

1. Areas where the Proposal will encounter archaeological sites
2. Areas where there is a reasonable cause to suspect archaeological sites will be encountered
3. Areas where there is a low probability of encountering archaeological sites

It is acknowledged that the Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. Any work that may affect an archaeological site requires an authority from Heritage New Zealand before commencement.

Part C4 of the TRMP relates to cultural heritage, recognised as comprising archaeological sites, wāhi tapu and wāhi tapu areas, heritage buildings, places, and precincts. The TRMP incorporates four heritage overlays, including Archaeological Sites & Areas (Overlay 2) to assist with the protection and management of historic heritage. Overlay 2 includes information from the Heritage New Zealand List, NZAA Site Recording Scheme and archaeological surveys; the sites are also listed in a Schedule in Appendix 1 of the TRMP. The TRMP includes rules associated with each heritage overlay.

The Ōpōtiki District Council Plan defines heritage resources, as any historic place, wāhi tapu, archaeological site (as defined under the Heritage New Zealand Pouhere Taonga Act) and items including notable trees, objects or features. Chapter 14 of the Plan provides a set of rules for the management of heritage resources, as well as lists of wāhi tapu, heritage items from The Heritage New Zealand List Rārangi Kōrero and notable trees.

The historic heritage assessment categorises potential historic heritage effects into three categories for the purpose of their assessment, namely:

- *Green Zones are those areas where no archaeological or other historic heritage features were observed and where the possibility of encountering intact subterranean features is assessed to be low. The potential for effects on historic heritage values in these areas have been assessed to be less than minor. Works in these areas can proceed under an Archaeological Site Discovery Protocol (ASDP).*
- *Yellow Zones are those where no direct evidence of archaeological sites or historic heritage features was observed, but where subterranean or unidentified sites are considered likely to occur based on landscape context or secondary information (e.g., from historical survey plans). Further archaeological advice must be sought prior to any earthworks being carried out in such areas. This advice will determine whether areas designated yellow in this assessment are reassigned to either the green or red zones and how they will be managed in terms of the Heritage New Zealand Pouhere Taonga Act archaeological authority process.*
- *Red Zones are those where historic heritage places and/or archaeological sites recorded in the NZAA Site Recording Scheme are crossed by the ara, or where remote sensing techniques provided clear evidence that unrecorded sites are present in the construction footprint of the trail. An archaeological authority from Heritage New Zealand must be sought and obtained prior to any earthworks in these areas. Further archaeological assessment, including field visits, and the development of site instructions and/or management plans will be required to support any application for an archaeological authority. The effects on historic heritage places in red zones will be managed by either avoidance, minimisation of effects or mitigation under the Heritage New Zealand Pouhere Taonga Act provisions.*

The primary type of historic heritage place present in the Proposal area is archaeological sites.

In Green Zones the possibility of effects on archaeological sites and historic heritage places is assessed to be very low. Green Zones are characterised by the use of formed tracks, low use roads or highly modified areas where it is highly unlikely that archaeological or historic heritage features were present or remain in situ. The potential for effects on historic heritage are assessed to be less than minor in these areas, and therefore an Archaeological Site Discovery Protocol is the appropriate effects management tool in these areas.

Yellow Zones represent areas where there is no direct evidence of effects, but where secondary evidence or specific landscape context suggests sites may be present. Yellow zones require further archaeological assessment and advice when further detail of construction methodology and finalised routes are available. That assessment and advice will be used to determine whether areas categorised as yellow zone can be reassigned to either green or red zones.

Red Zones are those where there is clear evidence that Proposal passes over or through archaeological or historic heritage sites. Like Yellow Zones, further archaeological assessment is required in these areas to identify the specific effects of track construction on sites. This assessment will follow Heritage New

Zealand Pouhere Taonga guidelines and will include archaeological field survey and fine-grained desk-based analysis. In areas where the further assessment identifies construction of the ara will have effects on archaeological sites an application will be made under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 for a general authority to modify or damage archaeological sites prior to all ground disturbing works. The effect on sites will be mitigated in a variety of ways including, modification of the route to avoid visible surface features, archaeological monitoring and excavation and construction methodologies that minimise the potential for effects and limit on-going visitor impacts.

On the basis of the Historic Heritage Assessment provided by Insitu Archaeological Heritage and the measures proposed in the Application, it is considered that any adverse effects on heritage and archaeology will be less than minor.

5.1.4 Cultural Effects

A Cultural Impact Assessment (CIA) has been prepared by Pahou and Associates Ltd; a copy of which is contained in Appendix 10.

Due to the scale of the Proposal (approximately 400 land blocks, upwards of 60 Hapu, 4 Iwi, 20 communities), and the economic engagement with all key parties in this stage of the Project, the CIA report did not delve deep into the actual cultural impacts for each specific site. Rather the CIA sets out a framework and a set of high-level principles that will form the basis of the other detailed CIA reports that will stem from it.

Notwithstanding the above limitations, Te Rūnanganui o Ngāti Porou (Ngāti Porou iwi authority/PSGE) has fully endorsed Te Ara Tipuna, and endorsement will be sought from Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatōhea.

Ngāti Porou geographical area (Source: Te Puni Kokiri)

Te Whanau a Apanui geographical area (Source: Te Puni Kokiri)

Ngai Tai ki Torere geographical area (Source: Te Puni Kokiri)

Ngai Tai ki Torere geographical area (Source: Te Puni Kokiri)

The CIA states that:

> *Ngāti Porou, Te Whanau a Apanui, Ngai Tai and Te Whakatōhea have rich histories, strong cultural infrastructure, and lofty ambitions for the future of their people, communities,*

environment, and way of life. Te Ara Tipuna takes a bottom-up approach to building sustainable enterprise and wellness by investing in cultural infrastructure, capitalising, and enhancing existing cultural wealth and rebuilding the ethos required to ensure the culture thrives and flourishes across the region and into the future. Whenua, Whanau, Waiu – Land, People, Sustenance in a virtuous circle.

Te Ara Tipuna is a catalyst for investment in sustainable infrastructure in Te Tairawhiti, manifesting as a network of ara/accessways around the East Coast for local communities and visitors to hike, bike and trek.

Te Ara Tipuna takes a different approach by seeking to create a whenua-based artery around Te Tairawhiti that will sustain cultural, economic, social rejuvenation. It provides cultural and relational connections and stimulus for businesses and employment services, and unique experiences for both the uri (descendants) of the land and the manuhiri (guests) who visit. It will provide a springboard for multi-level, intersectoral collaboration between landowners, hapu, iwi, central, local government, and the private sector to leverage cultural and environmental collateral, invigorate economic prosperity and uplift social wellbeing.

The CIA goes on to discuss cultural impacts and states the following:

While there are a range of cultural impacts that will be identified in more detail in successive cultural impact assessments by the near completion of this project. These successive CIA will form the initial framing of the narrative for particular areas by whanau, hapu and land owners, for the purposes of this report they have been characterised as high level impacts with the appropriate preventative, elimination and or mitigation process advised.

Mana Whenua – Whanau, landowners, Hapu and Iwi hold mana whenua, which means they can exercise rangatiratanga over decision made in regard to areas under their direct purview.

Access – This speaks to the rights of the landowner, Hapu, Marae and in some cases Iwi to restrict access to certain areas for specific purposes, some of these purposes may include certain activities that are being carried out in a particular place at a particular time. Some might include restrictions due to health and safety concerns.

***Recommendation** – Scope out identified activities and prepare a schedule to help inform users of the track of any restrictions and kawa and tikanga that needs to be adhered to.*

Cultural Knowledge – Those people who visit and use the track might have a lack of cultural knowledge and information to respectfully engage with different sites, waahi tapu on the track.

***Recommendation** – Develop a Aru-whenua or 'passport system', accompanied by an Oati 'Oath' to adhere to identified Tikanga and Kawa in specific areas.*

Construction – any construction on identified sites of significance has the possibility of further damaging the existing site.

Recommendation *– Development of a Risk appetite statement alongside whanau, landowners, Hapu and Iwi and where applicable relevant agencies to determine an acceptable risk tolerance for construction on, in and around specific sites.*

Hononga/relationship – The relationship people have with the land is intrinsic, construction, traffic and other such activities could impinge on this relationship.

Recommendation *– Any finalised construction and design work should be done in consultation with landowners, whanau, hapu, and Iwi where applicable.*

Korero tuku iho/ whanau, hapu, iwi narratives- Landowners, whanau, hapu, and iwi will have control of the narratives, descriptions and information that is shared with walkers. cyclists and trekkers over their part of the trail.

All of the above recommendations are accepted and have been incorporated into the Proposal.

The CIA discusses cultural opportunities and outlines the significant opportunities available to whanau, landowners, hapu, and iwi by Te Ara Tipuna. Noting that the earlier introduction of a kaitiakitanga kawa, or code of care, and the device of a passport, intends that there be a consistent, whole of track set of expectations, there will be provision for the respect of the specific interests within each rohe as indicated by the following:

Mana Whenua *– this will provide the aforementioned groups with the ability to practically apply rangatiratanga and mana over the areas under their direct control. This project will also provide the opportunity for these groups to practically exhibit the roles and responsibilities that come with the exercising of rangatiratanga.*
Access *– this will support landowners, whanau, hapu, and iwi to exercise rangatiratanga by determining when and how access to areas will be given and supplementary to this, what parts of the area can be accessed.*
Cultural knowledge *– this holds the greatest opportunity, not only for the users of the track but more importantly for the landowners, whanau, hapu, and Iwi. This will allow for greater access to sites of significance, to the matauranga held in, on and around these sites, to the ecology and eco-systems that make up these sites. The cultural knowledge that will be accessed through this project will help to rejuvenate the people and place.*
Part of the development of the Aru-whenua and framing of the Oati will help in the articulation of Kawa and Tikanga for each area thereby contributing to the creation of resources for all those involved.
The Aru-whenua and Oati will also provide landowners, whanau, and hapu with the opportunity to design and develop the collateral (narratives, story boards) for signage and apps, for their stretch of Te Ara Tipuna, allowing them the opportunity to tell their stories in their way. This will also contribute to the corpus of whanau, hapu, and Iwi cultural resources in the future.

Construction – the planned construction for this project will serve to enhance the natural features of the area by causing negligible to minimal disturbance where possible. In some instances, it will provide an alternative accessway in civil emergency situations. It will provide an aesthetically pleasing infrastructure that will attract and encourage locals to walk these tracks which will contribute towards healthier outcomes for people.

Hononga/Relationship – This provides the opportunity to deepen the relationship whanau, hapu and iwi have with their land and therefore their natural resources. It provides one of the best opportunities for the descendants of these lands to connect, reconnect with the land, familiarise or re-familiarise themselves with their 'pepeha', so not only will they know their pepeha, but their pepeha will also know them.

On the basis of the CIA provided by Pahou and Associates Ltd, it is considered that the Proposal will provide a number of cultural opportunities and will have positive cultural effects.

5.1.5 Social Effects

A Social Impact Assessment (SIA) has been prepared through a collaboration between Rau Tipu Rau Ora (RTRO) and Tuara and Health Families East Cape (HFEC). A copy of this report is included within Appendix 15.

The SIA has been carried out in the context of the proposed Te Ara Tipuna Project being approved and completed. It is largely a "desktop" review based on information and insights collected from iwi profiles and reports, council plans, statistics, government policy, agency plans, media, literature and oral traditions.

Ten landowner and community engagement hui were scheduled between late April and early July 2023. Ten hui have been completed. The purpose of the hui was to inform landowners and communities of the Project, provide relevant background information, including a full set of maps and canvas the views of hui attendees on potential benefits and risks arising from the Project. The Project team will conduct a subsequent series of consultation hui with landowners to seek their advice and agreement on the exact location of the track on their property, the prevailing kawa and tikanga and the content and presentation of narratives, signage and promotional material.

The engagement hui were led and facilitated by the Te Ara Tipuna project management team and supported by Rau Tipu Rau Ora and Healthy Families East Cape. The engagement hui were a valuable opportunity to hear first-hand from landowners, hapu and community members about any potential risks, benefits and recommendations that they identified and use this feedback to inform the SIA. Six overarching themes emerged from the engagement hui in relation to the social impact of the Project; these are shown in Figure 5 below:

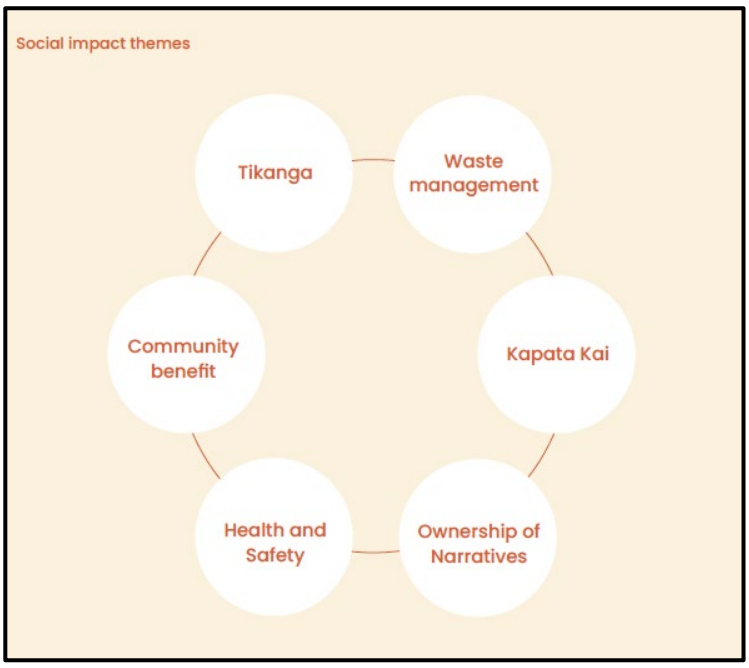


Figure 5 – Social Impact Themes

Tikanga

The key theme of tikanga and cultural integrity was heard widely throughout the region at each engagement hui. Whānau and landowners were vocal around ensuring the cultural integrity of whanau and hapu. There was also korero and questions around what plans were in place to protect local tikanga practices relevant to each hapu and iwi.

Waste Management

Concerns regarding waste management and waste minimization was a consistent theme at the engagement hui. Surging amounts of waste affect our country, with a reported 30% of waste in the Tairawhiti region stemming from food wastage. Landowners and whanau shared that they are worried about the waste impact from manuhiri (visitors) in our region because of Te Ara Tipuna.

Kāpata Kai

It was evident through engagement hui and conversations with whānau and landowners that the placement of the ara should prioritise the protection and growth of traditional kai sources, and support opportunities for local communities to access kāpata kai across te ara.

Ownership and Narratives

The hapu and whānau along te ara, need to provide the content and decide what narratives are shared about their section of te ara. The preference is for hapu and whanau to use their own people to narrate the stories in their own words, to ensure the authenticity and integrity of the narratives shared throughout te ara. The consensus from attendees at the engagement hui was that landowners and hapu need to have editorial control over the narratives produced for their part of te ara.

Health and Safety

Health and safety measures for manuhiri, landowners and whānau is of the upmost importance. Queries were raised about proposed measures to protect and keep hau kainga safe, and the need for health

and safety guidelines to provide advice on how to manage the health and safety risks along te ara, including guidance on the people and times people access te ara, on their whenua.

Community Benefit

Landowners were clear on the need to prioritise opportunities for locals in terms of job opportunities, and utilising hapū networks, skills and expertise in the construction and operation of Te Ara Tipuna.

The assessment of potential social impacts are classified as either positive or negative, dependent on whether the expected social consequences derived from the development enhance or diminish whanau, hapū, iwi, community values and social infrastructure.

The matters considered as part of the SIA are summarised below:

- Way of life: Impacts on people's daily routines caused by construction activities and/or operational arrangements. Impacts on people's commuting/travelling times, their experience of travel, and their ability to move around freely. Impacts on people's experience of privacy, peace, and quiet and enjoyment, especially if affected by increased noise. Impacts on people's general experience of life in their community.

    - Te Ara Tipuna provides major opportunities to support existing and new growers to achieve greater produce and diversity and extended production seasons
    - Through consultation and management of the construction activity the potential 'way of life' impacts can be managed to ensure any potential impact is minimised
    - The placement of the ara can support access to traditional kai sources, leading to positive impacts

- Community and Accessibility: Composition - impacts on demographic characteristics and community structure. Can be changed by in-migration and out-migration over time, including the presence of newcomers and loss of longer-term residents or sections of the community. Also, inflow/outflow of temporary residents, e.g., during construction.

    - The Project will provide infrastructure for an alternative pedestrian route (as part of Stage 1), and cyclist and horse trekker access route (as part of a potential future Stage 2), with provision for appropriate emergency vehicles in some sections of the track only during emergencies, thereby providing greater resiliency for whānau, hapū, iwi and communities.
    - There is minimal public transport provision around the East Coast. Increases in visitor numbers to Te Tairāwhiti will significantly enhance the viability of Council or community led public transport initiatives, as well as opportunities for low carbon electric mobility options, i.e., electric vehicles and Ebikes is considered more viable. Low carbon options will benefit both visitors to the region and locals.

- Culture: Indigenous and non-indigenous cultures, including shared belief systems, customs and values. Incorporates stories and connections to whenua and the built environment.

- Te Ara Tipuna will provide opportunities for mana whenua, to practically exhibit the roles and responsibilities that come with the exercising of rangatiratanga.
- Landowners, whānau, hapū, and Iwi will have greater access to sites of significance, to the matauranga held in, on and around these sites, to the ecology and eco-systems that make up these sites. The cultural knowledge that will be generated and shared through this Project will help to rejuvenate the people and place.
- The proposed Aru-whenua and Oati will also provide landowners, whānau, and hapū with the opportunity to design and develop the collateral (narratives, story boards) for signage and apps, for their stretch of Te Ara Tipuna, allowing them the opportunity to tell their stories in their way. This will also contribute to the corpus of whanau, hapu, and Iwi cultural resources in the future.

- He Tangata: WHAKAPAPA is the most important thing - the people to whom we are connected - and the understanding that we are people through other people, and all that they represent in terms of knowledge, experience and place.

    - The opportunities for relationships and connections under this Project have no bounds.
    - The relationships and connections created at a systems level during the preparation and through undertaking the Project, are multi-level and cross-sector.
    - Te Ara Tipuna will reinforce connection and contribution through whakapapa, and activity between and amongst communities.

- Livelihoods: People's capacity to sustain themselves.

    - Te Ara Tipuna will be the wellspring of local level enterprise and economic development, of environmental protection, development and sustainability, of work, wealth and wellbeing, of family, whanau and community.
    - Te Ara Tipuna will generate more possibilities of uri (descendants) returning to live and work at home and contribute their skills and capabilities to growth and development of the Coast.

- Health and Wellbeing: A holistic view of hauora (physical and mental wellbeing) with focus on the wellbeing of individuals within communities, and consideration for those who may be vulnerable to substantial change.

    - Te Ara Tipuna will act as a stimulus for whānau to engage in recreation pursuits that will not only improve their physical, mental and emotional health but strengthen their self-determination, identity and connection to the environment.
    - Te Ara Tipuna provides an alternative route during an emergency.

- Decision Making Systems/Power Dynamics: Whether people experience procedural fairness and can make informed decisions. Whether people are enjoying the power to influence decision and can access mechanisms when complaints or grievances are experienced.

    - Te Ara Tipuna is a platform for partnering with central and local government, agencies and industry, to create the capillaries of local level enterprise and economic

development, movement and connection, through building the infrastructure of the ara (access ways) and ancillary amenities from Gisborne to Ōpōtiki.

- Te Ara Tipuna takes a different approach by seeking to create a whenua-based artery around Te Tairāwhiti that will sustain economic, social and cultural rejuvenation. It will be the springboard for a multi-layer across- government approach that supports the area to thrive.
- The aim of the track is to deliver positive community outcomes which include creating something for visitors to enjoy, providing opportunities to build stronger and wealthier communities and a better place to live in.

The assessment determines that the effects of the Project on all of the above matters are positive. The SIA goes on to conclude the following:

> *Based on the above considerations, it is concluded that there is sufficient demand for the proposed Te Ara Tipuna Trail.*
>
> *Te Ara Tipuna will create the conditions in which Ngāti Porou,* Te Whānau-ā-Apanui*, Ngai Tai ki Torere and Te Whakatōhea can regenerate the cultural wealth of a lively, healthy society of connected communities, culturally fluent and capable, enterprising and economically active, environmental protectors and sustainers, in revitalised whānau, hapū, and iwi relationships.*
>
> *The potential impact of Te Ara Tipuna is therefore immense, with the added opportunity for a distinct tourism experience into the heart of Te Tairāwhiti on foot, cycle and horseback. The trail opens a part of Aotearoa where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai. The opportunities for systemic conversations and changes in equity, power dynamics, policy shifting and relationships and connections is therefore massive, as Te Ara Tipuna will be able to offer warm, welcoming and unique experiences of manaaki as all individuals across Aotearoa can walk into a marae, prepare kai in the kauta, eat and wash dishes, korero, sleep in the wharenui and head off into the day and to the next equally proud hapu along the ara.*
>
> *Overall, the social impacts of the proposed development are expected to have a positive impact on the population of the rohe of Ngāti Porou, Te Whānau-ā-Apanui, Ngai Tai ki Torere and Te Whakatōhea and help address the need for increased employment opportunities, better lifestyle and improved well being.*

On the basis of the Social Impact Assessment provided by RTRO, Tuara and HFEC, it is considered that the Project as a whole, as well the Proposal (i.e. Stage 1 in isolation), will result in significant positive social impacts.

5.1.6 Recreational Effects

A Recreation Assessment has been prepared by Sport Gisborne Tairāwhiti – a copy of this assessment is included within **Appendix 14.** This assessment considers the potential effects on recreation that will occur through the development of the Te Ara Tipuna Track around the East Coast.

The key finding from this assessment *is that the development of the Ara will provide increased recreational and well-being benefits, providing a significant social return on investment. For local communities, it will enhance their ability to take part in existing recreational activities, as well as introduce a range of new recreational opportunities. Importantly, these recreational activities transcend beyond purely physical benefits, as they will embrace Ngāti Poroutanga. Whilst increased tourism is seen as a secondary outcome from the development of the Ara behind the restoration of connectivity for local communities, the Ara will result in an increase in visitors to the region who will be enticed by the recreational opportunities afforded. There will be a range of benefits for the wider East Coast from these additional visitors.*

The assessment acknowledged that *there are unintended consequences that will come with the increased accessibility to recreational activities from the development of the Ara, so consideration will need to be given as to how these are best managed. These consequences range from the increased health and safety risks that will occur from both locals and visitors having greater access to te taiao, and specifically hazards such as isolated areas and waterways, to the potential for local kāpatakai and favoured recreation spots to be accessed by visitors to the region. However, these risks can be mitigated and do not outweigh the significant benefits that will occur with the development of the trails.*

In undertaking the recreational assessment Sport Gisborne Tairāwhiti have:

- Considered a definition of what (active) recreation entails and the value it generates.
- Completed an environmental scan – outlining the recreation activities/facilities that currently exist on the East Coast.
- Considered the recreation opportunities that will emerge or be enhanced from the development of the Ara and the flow-on benefits these will have to the region.
- Considered any possible unintended consequences from creatin more recreational opportunities, or better accessibility to existing recreation areas, and how these can be mitigated.

With respect to the definition of recreation, the assessment acknowledges that this is subjective and can be difficult to define. With regard to Te Ara Tipuna, the assessment notes that *the activity of walking, biking or trekking the Ara supports physical wellbeing, but it is the taiao, matauranga, and wairua that feeds mental, social and emotional wellbeing. While wellbeing may refer to the wellness an individual experiences, supporting activity on the Ara that focus on positively building hauora, mana and mauri will intrinsically enable people to behave as kaitiaki on the Ara increasing the mauri of a person as well as the Ara and uplifting the vitality and wellbeing of both people and place.*

In terms of existing recreational activities and facilities within the Tairawhiti and Ōpōtiki districts the report identifies the following:

- 26 schools and kura stretching from Wainui Beach in Gisbore to Opōtiki.
- 29 sport and active recreation clubs, community groups and businesses based on the East Coast (Ngāti Porou) who support and deliver active recreation experiences.

There are 61 additional active recreation and community groups in Gisborne and surrounding rural areas that do not currently service the coast. Te Ara Tipuna would provide an opportunity for many of these groups to consider expanding their offerings or support capacity and capability build for interested communities to include use of the tracks.

In terms of recreational opportunities, the assessment states that the development of Te Ara Tipuna tracks would provide opportunity for more small businesses and eco-tourism ventures to flourish around the Ara, such as accommodation for track users, horse trek tours, guided walks or cycle rides, equipment hires and recreation activities. Local people would be able to share their pūrākau with visitors, offer them unique marae experiences and provide the opportunity for visitors and locals alike to give back to the taioa through planting days and restoration projects.

As acknowledged previously, there are a range of health and safety risks that will occur from both locals and visitors having greater access to te taiao, and specifically hazards such as isolated areas and waterways, and extreme changes in weather. The type and severity of risk can also depend upon the mode of transport being used. A detailed breakdown of risks and key mitigations is included within the assessment; the passport system mentioned previously will be used to highlight and manage these risks.

Whilst the Recreation Assessment provided by Sport Gisborne Tairāwhiti considered both Stages 1 and 2, Stage 1 in itself will provide significant positive recreational effects. Any adverse recreational effects will be appropriately managed.

5.1.7 Traffic Effects

A traffic assessment and management plan for the Project has been prepared by Urban Connections - a copy of this report is included within Appendix 16.

The traffic assessment focuses on the following typical interactions:

- areas where the track runs adjacent to roads,
- intersects with them, and
- areas where parking provisions are to be provided for the track users.

Te Ara Tipuna is currently at a high-level design stage, and a large-scale project. It is proposed that this Transport Assessment and Management Plan is used to support the approval of the transport related aspects of the Project including Stage 1, recognising additional detail will be required as the level of detail for the design evolves for each stage. The Project team will work closely with the relevant Roading Controlling Authorities (RCA) throughout the detailed design process.

It is proposed to utilise a standard set of design standards for the majority of the track. The proposed typical track cross-sections for where the track is within the road reserve and standard design treatments for road crossings are described in **Table 1** below:

Table 1: Typical Track Cross-Section Descriptions

Cross-section	Name	Description
C/S 7	Narrow lane adjacent to state highway	For rural State Highways where there are width constraints. Separated from traffic lane by 0.5m and flexi-post bollards. 1 – 1.5m trail on unsealed shoulder.
C/S 8	Multi-lane path adjacent to state highway	For rural State Highways where there are not width constraints. Separated from traffic lane by 0.5m and flexi-post bollards. 1 – 1.5m trail on unsealed shoulder and additional space beyond which allows other trail users to pass.
C/S 9	Pathways adjacent to state highway in residential settlement	Utilises existing 1 – 2m cycle lanes on one side of the road and existing 2 – 3m footpath and berm for walking and horses.
C/S 10	Walkway alongside low-volume local road	For use on low volume roads. A 1.2m walkway constructed on the most practical side of the road.
C/S 11	Low volume local road: Utilising the existing carriageway	For use on low volume roads. Trail utilises one side of the existing carriageway for users.
C/S 12	Local road fit for purpose	Low volume local roads where trail users can either utilise the existing berm or the carriageway.

Example cross sections are provided within the traffic assessment and CMP.

Site specific treatments will be developed for scenarios where these treatments may not be appropriate. These are likely to be at areas where the users may be;

- required to cross bridges,
- travel through pinch points within the road reserve,
- constrained by sight distance.

Some sections of the track or crossing points may require additional engineering features to provide an appropriate level of service and safety. These will be assessed in more detail at the scheme design stage. These additional features may include:

- Speed management – There may be locations where the track is closer to the road or highway than desired. In these locations road vehicle speed management may be an appropriate and/or the additional measures below may be implemented;
- Electronic signs – User or sensor activated electronic signs may be utilised where the users are required to utilise existing bridges, at some crossing points or pinch points to advise motorists of their presence;
- Static signs – Traditional static signs may also be utilised in some locations to raise the awareness of motorists to the presence of pedestrians adjacent to the road or crossing the road ahead;
- Traffic calming – This can take the form of various interventions including raised safety platforms, speed cushions, pedestrian refuges, audio tactile pavement markings, road markings, flexi posts, thresholds and gate ways. These may be used to reduce vehicle speeds where required;
- Sight distance improvements / widening on bends – Where required sight benching or widening may be constructed on curves;

- Street lighting – Lighting may be required at crossing points where refuges or kerb extensions may be required; and
- Shuttles – ultimately there may be sections where engineering solutions may not be able to mitigate risks and some form of shuttle service may be required.

Each stage of the implementation of Stage 1 will include the following steps where the track is within the road reserve:

- A site visit to undertake site measurements, identify pinch points, measure sight distance where required and determine the appropriateness of the standard treatments;
- Undertake a topographical survey as required;
- Develop plans to scheme level, including any site-specific treatments;
- Engage with the relevant RCA for feedback on the scheme design;
- Undertake a preliminary Safe System Audit (SSA);
- Engage with relevant RCA on the results of the SSA;
- Update design to detailed design level, including feedback from the RCA and SSA;
- Undertake a detailed design SSA;
- Update design to construction level, including feedback from the RCA and SSA; and
- Following construction, a post construction SSA will be undertaken and shared with the relevant RCA.

The Project will have an element of continuous improvement in the design process as it will be implemented in a staged manner and the learnings from engagement with the RCA and from the completed SSA can be used in future stages.

The traffic assessment concludes that:

> *The trail, crossing points and bridge crossings can be implemented via standard engineering interventions with specific designs at some locations. The project team will work closely with the Road Controlling Authorities throughout the design process.*
>
> *As outlined in Section 2.1, each phase of the design and construction will be subject to Safe Systems Audits.*
>
> *Subject to these audits being completed and any issues addressed, the transport effects are considered to be minimal.*

On the basis of the Traffic Assessment and Management Plan provided by Urban Connection and the measures inherent in the Application it is considered that any adverse effects on traffic and access will be less than minor.

5.1.8 Ecological Effects

An initial Ecological Assessment was undertaken by Tairāwhiti Environment Centre and Graeme Atkins, a copy of this assessment is included within **Appendix 12.**

Thirty-three areas of ecological significance were identified and assessed within the ecological assessment. Seven of these areas are identified as being potentially affected by the Proposal (i.e. Stage 1). The seven areas are as follows:

- Whangaparaoa Dunefield
- Waipare and Nuhiti Q Scenic Area
- Tauhiti
- Te Koau
- Orangoihunui Point
- Whangara Beach
- Oruaiti

To minimise impacts on ecological values, the track alignment avoids areas identified as 'significant areas' in the Ecological Assessment, where possible.

A similar approach was taken with wetlands, with the track alignment avoiding all wetlands identified in the relevant Council maps.

The proposed draft conditions (**Appendix 19**) require the implementation of management plans to manage effects. A draft Ecological Management Plan (EMP) has been prepared by Mark Delaney of Viridis included in **Appendix 20**, which outlines the ecological survey and management plan protocol which requires a pre-construction ecological survey to confirm the ecological values of the area and identify any 'confirmed ecological area' (which will include any unmapped wetlands). The survey will assess and confirm the impact of the track on those identified values. Whilst unlikely, due to the nature of the pedestrian track and the ability to realign it to avoid 'confirmed ecological areas', should the construction of the track impact a 'confirmed ecological area' the effects will be managed by the implementation of fauna and habitat management plans which include guidance on how to minimise, mitigate and offset ecological effects.

On the basis of the Ecological Assessment provided by Tairāwhiti Environment Centre and Graeme Atkins (which is also endorsed by Mark Delaney of Viridis), the minor construction required for a pedestrian track, and the implementation of measures included in the EMP it is considered that any adverse ecological effects have been avoided in the first instance and otherwise will be less than minor.

5.1.9 Coastal Hazard Effects

A Coastal Hazard Assessment has been undertaken by 4D Environmental Ltd; a copy of this assessment is included within **Appendix 8.**

The assessment discusses the environment and states the following:

> *Large stretches of Tairāwhiti coastline are characterised by high cliffs (up to 100 m) formed from weak sedimentary rocks. Rock properties and bedding angles vary greatly, which influences erosion rates, landslide susceptibility and slope angle development. Extensive*

sand beach systems exist between cliff headlands, with numerous river and stream entrances. These beaches are dynamic shorelines and in many areas are experiencing slow ongoing erosion. Beaches are backed by dune systems or low-lying coastal plains of varied width and steeply rising land. The coastal margin is fronted by a rocky shore platform in some areas (including Tokomaru Bay and the East Cape area). The shore platform is covered in some areas by a narrow beach and backed by a low-lying coastal plain.
The Ōpōtiki coastline is also highly varied, with a mixture of exposed sandy beaches backed by wide coastal plains, narrow sand/gravel beaches with rocky shore platforms, and mixed sand gravel barriers. Multiple rivers supply large volumes of sediment to the coastline. Beaches are separated by sedimentary rocky outcrops.

Small settlements exist at many of the beaches, but most of the Tairāwhiti shoreline is backed by coastal reserve and road, or by rural land. Significant townships exist at Tolaga Bay and Tokomaru Bay. The Ōpōtiki shoreline is also largely undeveloped, with numerous small settlements located on the coast but no major urban centres.

The assessment goes on to describe the main shoreline types and broadly summarise the key processes affecting these environments, as well as their likely response to future sea level rise.

In terms of the potential effects of the construction and operation of the Project the assessment notes the following:

As the proposed trail is generally a low-profile track, and in many coastal areas an unformed track, the construction and presence of the trail is unlikely to have significant adverse effects on the coastline or coastal hazards. However, inappropriate positioning, construction or management of the trail could exacerbate the existing coastal hazard risk, including:

- *earthworks and associated vegetation disturbance on sensitive dune and coastal margin environments*
- *damage to dunes and coastal margins from increased pedestrian and horse access*
- *increased coastal hazard risk due to placement of assets (including the trail and associated structures) within high-risk areas.*

The report outlines measures to manage the above potential effects, and such measures are accepted and included in the Application's proposed mitigation measures.

The assessment goes on to state:

The establishment of Te Ara Tipuna will have little or no effect on existing coastal hazards, based on the following conclusions and assumptions:

- *the trail will be marked with simple way finding posts and earthworks will be minimised in sand dunes, unless for the purposes of dune restoration or improvement of dune stability*
- *the trail itself does not create a barrier to natural coastal processes*
- *if the trail is threatened or damaged by coastal erosion, management actions will prioritise avoidance and adaptation of the trail alignment over the construction of protection works*

- *the trail does not include lowering of sand dunes or significant earthworks in coastal inundation areas, and will either avoid or be designed to withstand occasional coastal inundation in low-lying coastal margins*
- *coastal hazard risk is minimised by locating proposed structures (toilets, shelters and boardwalks) mostly outside coastal hazard areas, and any remaining coastal hazard risk can be mitigated through an adaptive management approach.*

Although the establishment of the trail is unlikely to affect coastal hazard processes, users of the trail could be impacted by coastal hazards, and there is a risk of physical damage to the trail over time in some places. There are sections of the trail located close to erosional coastlines, and in some areas the road and/or other land-based assets are already threatened by coastal erosion, with little space to align the trail further landward. In most of these areas, the trail follows existing roads, and its maintenance will likely be integrated with the management of the road.

Predicting each of the many components of coastal erosion hazard comes with considerable uncertainty, particularly the long-term rate and effect of future sea level rise. The likely lifespan of a section of trail close to the coast cannot be accurately predicted. Coastal erosion hazard could be managed using an adaptive management approach, with monitoring and a range of triggers and actions that relate to the coastal hazard risk profile over time. This approach would provide for coastal sections of the trail to be utilised while conditions allow, while planning for future actions to adapt to an increasing hazard risk over time and ensuring the objectives of Te Ara Tipuna are met in terms of resilience.

In low lying areas (particularly Tokomaru Bay and Tolaga Bay), the trail may be periodically inundated during coastal storm events, either directly by storm surge, or by wave run-up and overwash close to the coast. This is only likely during rare and extreme events but is expected to become more frequent over time with projected sea level rise.

A "passport" system has been proposed, to provide trail users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc). This system will include information about coastal hazards, including:

- *avoiding unnecessary damage in sand dune environments, by using defined accessways and trails*
- *awareness of tides and storm surge (i.e. some portions of the trail may not be safe during high stages of the tide, or during storm or high wave events)*
- *basic awareness of tsunami hazard (i.e. signs and actions)*

The Coastal Hazard Assessment provided by 4D Environmental assessment was based on both Stages 1 and 2 and as such has assessed a wider array of effects than will occur as a result of the Proposal. On that basis, it is considered that the Coastal Hazard Assessment is conservative and any adverse effects on, and from, coastal hazards with respect to the Proposal will be less than have been assessed, and in any event will be less than minor noting that an adaptive approach will need to be taken to management of the track over time in hazardous areas. The establishment of a pedestrian path within the coastal

hazard areas, which shall rely on wayfinding and very low impact design, will have less than minor effects.

5.1.10 Geotechnical Effects

A Geotechnical Assessment Report has been prepared by Initia Geotechnical Specialists; a copy of this report is included within **Appendix 11**. This assessment is based upon a desktop study and a geotechnical site visit; further geotechnical mapping and investigations will be required during the detailed design phase.

The assessment states that:

> *The East Cape region is prone to many geotechnical hazards due to the regions tectonic setting and exposure to coastal weather systems. These hazards are particularly relevant considering the predicted increase in frequency of significant weather events due to climate change and sea-level rise. The complex geological structures of the East Cape, together with typically weak rock types and steep topography results in landforms that are susceptible to landslips and coastal erosion. Areas of Quaternary sediment deposition in low lying valleys and coastal areas are prone to a potential liquefaction and lateral spread hazard when large seismic events occur.*

The typical hazards encountered in the East Cape region are landslips, liquefaction and lateral spread, active faults and coastal regression. All such hazards are discussed in further detail in the assessment.

The assessment was undertaken to understand present potential hazards along each day of the track. A preliminary risk rating for each day was provided. The preliminary risk rating will be refined throughout the detailed design phase and will focus on site specific risks. A description of the risk rating is provided below:

> *Low Risk Rating*
> *Areas of the track that are considered a low risk are typically situated on flat alluvial plains or areas of gently sloping hills. These areas have not had any significant geotechnical risks identified and we do not expect to undertake geotechnical analysis at the detailed design stage. Geotechnical risks along these sections of the track will typically be able to be addressed through the construction stage and solutions are unlikely to affect the trail alignment or be costly. Although these areas will not require detailed geotechnical assessments, it would be prudent for site walkovers and/or an aerial imagery review be undertaken to confirm preliminary risk findings.*
>
> *Moderate Risk Rating*
> *Areas of the track that are considered a moderate risk are typically situated on moderately sloping hillslopes or near coastal sea cliffs. These areas have potentially significant geotechnical risks; however, these risks are able to be managed where alternate route selections are available. Geotechnical mapping and assessments will be required at the detailed design stage to ensure that the track alignment is not hindered by sections of*

potential instability. It is envisaged that areas of moderate risk will not require engineered solutions and the potential risk to the track can be managed through the detailed design process.

High Risk Rating

Areas of the track that are considered a high risk are typically situated on moderate to steeply sloping hillslopes that show evidence of significant historic instability. These areas have significant geotechnical risks and will require detailed geotechnical mapping and assessment to advise on track alignment where the geotechnical risk can be managed. High risk areas may require engineered solutions on parts of the track to increase stability of slopes where an alternative route is not practical.

There are several days where the risk rating is moderate-high or high, these days are shown in the figures below:

Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
Day 5	– Unit 4 – Unit 5	– Beach – Moderately to steeply sloping hill country – Alluvial Plains	– Road and Road Corridor – Silver Tier Track – Existing walking track	– Slope stability of proposed track down from Earnest Reeve Walkway	– Day 5 starts in Tolaga Bay heading up Earnest Reeve Walkway and down a steep slope before following alluvial plains. A section of the track marked Day 5 Key area on	– Geotechnical slope stability assessment and site mapping will be required for the steep slopes	High
			– Standard Tier Track – Beach		Figure 1538-G06 has been identified as an area with a significant stability risk. Further geotechnical assessment will be required to determine a suitable route down from Earnest Reeve Walkway	identified as a key risk along Day 5.	
Day 7	– Unit 4 – Unit 5	– Beach – Moderately to steeply sloping hill country	– Existing Road and Road Corridor – Standard Tier Track – Beach – Existing Farm Track	- Slope stability risk along moderately to steeply sloping vegetated hills - Coastal erosion and sea cliff stability -	- Day 7 starts along Anaura bay before heading along coastal cliffs and then traverses through vegetated hillslopes. 2 No. sections of the track have been identified as key areas and are marked on Figure 1538-G08. Key area 1 is the section of track the follows the coastal seacliff and key are 2 is the section of track that follows the heavily vegetated hillslope. This area will require geotechnical assessment to determine a suitable route.	- Geotechnical slope stability assessment and site mapping will be required for the coastal cliff section and the heavily vegetated hillslopes. A coastal regression assessment may be required pending the location of the track in relation to the sea cliffs	Moderate to High
Day 8	– Unit 3 – Unit 4 – Unit 5	– Moderately to steeply sloping hill country – Alluvial Plains	– Existing Road and Road Corridor – Standard Tier Track	– Slope stability in heavily vegetated hills after Tokomaru Bay	– Day 8 starts along the coastline of Tokomaru Bay and proceeds to traverse along moderately to steeply sloping, heavily vegetated hill country. The entire section of the vegetated hill country is considered to be a potential instability risk and is marked on Figure 1538-G09 as Day 8 Key area. This area will require further geotechnical assessment to determine as suitable route.	– Geotechnical slope stability assessment and site mapping will be required to determine the stability risk through the vegetated hillslopes. Due to the remote nature of this section of the track, aerial imagery will likely be the most efficient way to assess stability.	Moderate to High
Day 23	– Unit 1 – Unit 5	– Moderately to steeply sloping hill country – River Plains – Beach	– Proposed Taxi Service	– Due to steep slopes, large river crossings and narrow roads this section of the track is proposed to use a taxi/shuttle service	– N/A	– If the taxi/shuttle system is to be removed and a route is to be cut along the hillslope, geotechnical investigation and mapping will be required	**Low** – if implementing the taxi/shuttle service **High** – if a track is proposed to be cut along the hill slope
Day 24	– Unit 1 – Unit 5	– Moderately to steeply sloping hill country – River Plains – Beach	– Proposed Taxi Service	– Due to steep slopes and narrow roads this section of the track is proposed to use a taxi/shuttle service	– N/A	– If the taxi/shuttle system is to be removed and a route is to be cut along the hillslope, geotechnical investigation and mapping will be required	**Low** – if implementing the taxi/shuttle service **High** – if a track is proposed to be cut along the hill slope
Hikurangi Loop Track							
Day 2	– Unit 2 – Unit 5	– Moderately to steeply sloping hill country	– Standard Tier Track	– Slope stability risk of the track along the ridgeline whilst traversing step slopes	– Day 2 traverses steep hillslopes that have evidence of historic slopes failures. The entire section of the track is considered a stability risk and requires further geotechnical assessment.	– Geotechnical slope stability assessment and mapping will be required at the design stage to assess a suitable route through the steep terrain.	Moderate to High

In these high-risk areas, there are engineering solutions (such as retaining walls, soil nail and mesh, earthworks) that may be required to improve or eliminate slope stability risks; the extent, size and type of engineering solutions will be determined after site specific investigation and analysis.

The assessment concludes the following:

1. The track is located in an area of complex geology with typically steep topography throughout the region and thus has many associated geotechnical hazards.
2. This assessment report is based on a desktop study with limited visual observation and accuracy constraints of available aerial imagery. The risk assessment advice provided should be considered preliminary in nature to inform a staged approach to the design, and to estimate the scope of future geotechnical assessments.
3. The main geotechnical hazards for the Te Ara Tipuna Trail is slope instability through moderately to steeply sloping hill country found throughout the region. Liquefaction and lateral risk will need to be considered for structures built on Quaternary sediments.
4. Based on the initial desktop study and site visit, the track is considered to be geotechnically feasible with the correct geotechnical consultation through the design stage.
5. Geotechnical site mapping and assessment with be required throughout the design stage to refine the track alignment and mitigate geotechnical risks.
6. It is not envisaged that significant engineering solutions will be required to create the Te Ara Tipuna Trail.
7. Geotechnical investigation, reporting and analysis will be required for any structure requiring a resource and building consent.

On the basis of the Geotechnical Assessment provided by Initia and the mitigation measures proposed as part of the Proposal it is considered that any adverse geotechnical effects can be appropriately managed and will be less than minor.

5.2 Summary of Effects

Overall, it is considered that any adverse effects on the wider environment relating to the Proposal i.e. Stage 1 will be less than minor and can be appropriately managed through the conditions of consent.

6. Notification of Application

6.1 Public Notification Assessment

The Applicant requests that the Application is publicly notified (s95A(3)(a)). Therefore, the Councils must notify the Application and the remaining steps of section 95A are not applicable.

The reasons for requesting public notification are not due to any actual or potential effects of the Proposal on the environment, but rather to enable and encourage public participation in this Application given it covers a large geographic area and in light of the expected public interest.

6.2 Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act

The Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 (Ngāti Porou Act) came into force on 29 May 2019. The Ngāti Porou Act gives effect to a legal agreement between the Crown and Ngāti Porou and is intended to contribute to the legal expression, protection and recognition of the continued mana of Ngāti Porou Hapū in relation to their rohe.

Section 16 contains specific provisions relating to the processing of resource consent applications by the Council under the RMA. These provisions are in turn linked to Schedules 2 and 4 that describe and illustrate the rohe of Ngāti Porou Hapū.

Section 16 requires the Council to notify Ngāti Oneone of any application that involves 'an activity within, adjacent to or directly affecting' a Hapū rohe and is being processed in a limited or non-notified manner. Alternatively, if public notification of an application is to be undertaken by the Council, notification of the application to Ngāti Oneone is required.

The Proposal involves activities within the Ngāti Oneone rohe. On this basis the Council is required to notify Ngāti Oneone, under Section 16 and related Schedule 2 and 3 provisions in the Ngāti Porou Act.

7. Consultation and Engagement

Despite significant challenges relating to Project scale, pandemic upheaval, and constant and devastating weather events, engagement, communication, and information sharing by and about the Project has been a priority.

Consultation and engagement began in 2021, with the first socialisation of Te Ara Tipuna with Te Rūnanganui o Ngāti Porou (TRONPnui), in August 2021, to the first introductory sessions with landowners, hapū, and communities between Gisborne and Ōpōtiki from May/June 2023. See **Figure 6** below:

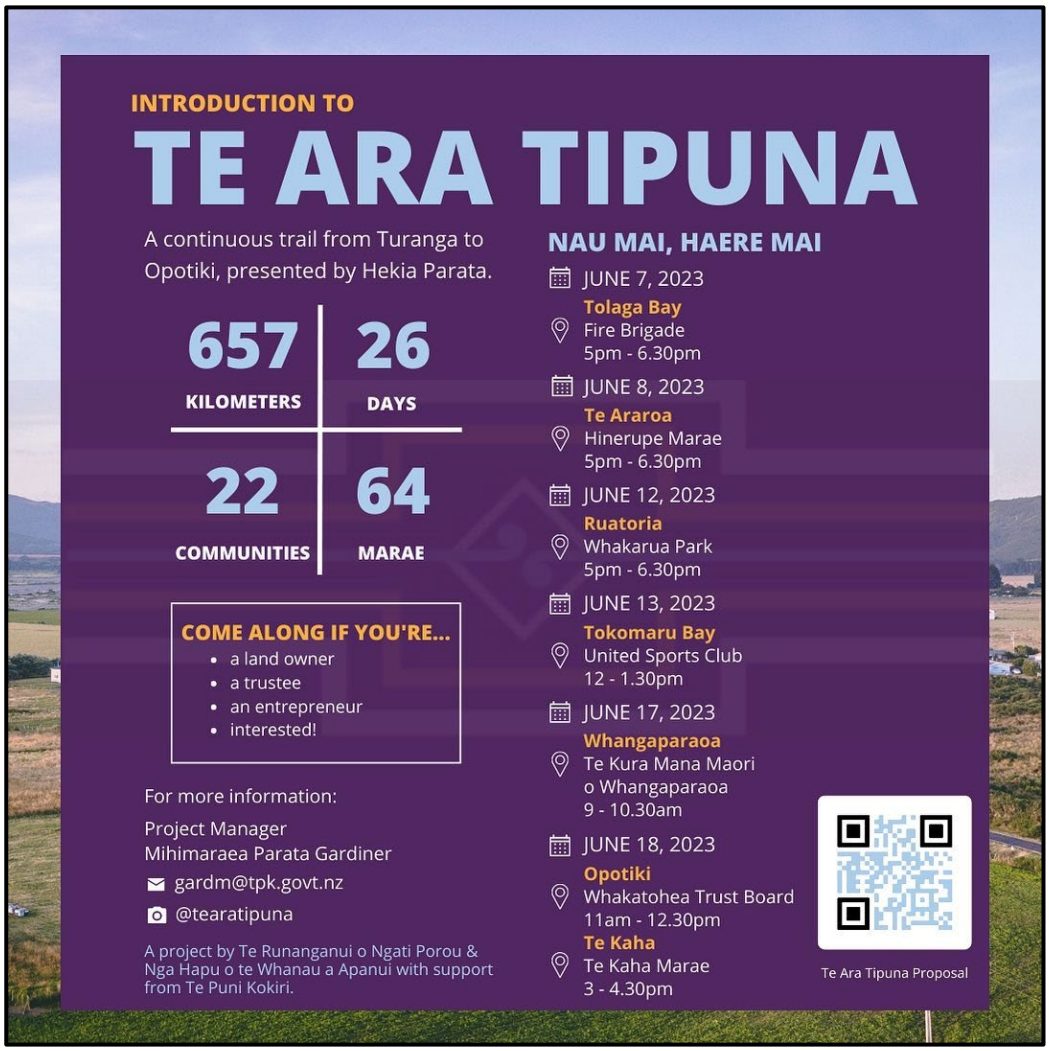


Figure 6 – Consultation flyer

The consultation and engagement team, led by Hekia Parata and Mihimaraea Parata- Gardiner have met with iwi and hapu representatives, community leaders and members, marae trustees, Māori freehold and general landowners and trustees, and whānau and family that live both within, and have connections to, the three territorial authorities.

They have had discussions with local government representatives at the Gisborne District Council, the Ōpōtiki District Council, and the Bay of Plenty Regional Council. We have had pre-application meetings at each territorial authority, had conversations with elected representatives and senior officials, and taken part in relevant council workshops pertaining to walking and cycling strategies.

They have presented Te Ara Tipuna to the (former) Prime Minister Jacinda Ardern, and her Ministerial colleagues, at the Ngāti Porou Crown Taumata at Parliament in September 2022. Endorsement for the Project has been received from the Minister for Māori Development, Hon Willie Jackson, support from Hon Meka Whaitiri as former Herenga a Nuku Walking Access Minister and local MP. A briefing has been provided to Hon Kiri Allan as both local MP and Minister for Regional Development.

In addition to the above, the team have created a Facebook (Facebook Facebook) and Instagram (Te Ara Tipuna (@tearatipuna) • Instagram photos and videos) page for the purposes of info-sharing and engagement. The platforms are an opportunity for people to engage with the Project, and contact the Project Team through Facebook and Instagram Messenger, as well as a monitored email address.

A website (Te Ara Tipuna) provides access to the full Te Ara Tipuna Project details and previous application documents (also accessible through the QR code on the engagement poster in **Figure 6** above), images of the proposed tracks, the list of land blocks impacted, and consent documents. There is a Frequently Asked Questions section, using questions that have been asked throughout our engagement process. There is also a contact section to allow for people to get in touch directly.

Two email databases have been established; one from those who attended the public hui, and one for landowners directly impacted. The email database for those who attended the community engagement will be sent periodic updates as the Project progresses. The landowner database is steadily growing. Public access to landowner and trust details have been minimal for various reasons including outdated information, shares not succeeded to, postal addresses only. The database we have created has been obtained through mutual connections, or actively reaching out to people in person.

Consultation and engagement is ongoing and is the central focus of the Project Team.

A consultation and engagement report which provides further detail has been prepared and a copy of this included within Appendix 17.

8. Statutory and Policy Assessment

8.1 Section 104 Matters

Overall, the Proposal is a Discretionary activity. The matters that require consideration in assessing this Application are set out in section 104 and section 104B of the Resource Management Act 1991. These matters include the actual and potential effects of allowing activities on the environment, the relevant objectives and policies of the planning documents, and any other matter that is relevant and necessary to determine the Application. The provisions of section 104 are subject to the matters set out in Part 2 of the Act.

The preceding sections of this report address the relevant assessment criteria and the actual and potential effects of the Proposal on the environment. An assessment of the relevant objectives and policies and the relevant provisions of Part 2 of the Resource Management Act 1991 is provided below.

8.2 Policy Assessment

In accordance with Section 104(1)(b) of the Resource Management Act 1991 ('RMA'), this part of the report addresses the following statutory documents which are relevant to the assessment of this Proposal:

- Reserves Act 1977
- New Zealand Coastal Policy Statement ('NZCPS')
- National Policy Statement for Indigenous Biodiversity
- National Policy Statement for Highly Productive Land
- National Policy Statement for Fresh Water Management
- Heritage New Zealand Pouhere Taonga Act 2014
- Tairāwhiti Plan Regional Policy Statement
- Tairāwhiti Resource Management Plan
- Bay of Plenty Regional Natural Resources Plan
- Ōpōtiki District Plan

8.2.1 Reserves Act 1977

The Reserves Act 1977 was established to acquire, preserve and manage areas for their conservation values or public recreational and educational values.

The Reserves Act provides for the acquisition of land for reserves, and the classification and management of reserves (including leases and licences).

The Reserves Act has three main functions. These are:

- To provide for the preservation and management, for the benefit and enjoyment of the public, areas possessing some special feature or values such as recreational use, wildlife, landscape amenity or scenic value. For example, the reserve may have value for recreation, education, as wildlife habitat or as an interesting landscape.
- To ensure, as far as practicable, the preservation of representative natural ecosystems or landscapes and the survival of indigenous species of flora and fauna, both rare and commonplace.
- To ensure, as far as practicable, the preservation of access for the public to the coastline, islands, lakeshore and riverbanks and to encourage the protection and preservation of the natural character of these areas.

Reserves may be administered by the department or by other ministers, boards, trustees, local authorities, societies and other organisations appointed to control and manage the reserve, or in whom reserves are vested.

Stage 1 does extend over a number of parcels with reserve status. The track itself is consistent with the general function of the Reserves Act which is to provide for recreational use for the benefit and enjoyment of the public. Where the track extends through reserve areas Te Ara Tipuna Charitable Trust will work with the department that administers the reserve to obtain the necessary approvals to enable the track to traverse the reserve. In preparing this Application we have consulted with the Herenga ā Nuku Aotearoa, the Outdoor Access Commission, who will assist with this process.

8.2.2 New Zealand Coastal Policy Statement

The purpose of the New Zealand Coastal Policy Statement (NZCPS) is to state policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. The NZCPS is relevant to the parts of the Proposal that are located in the CMA (i.e. two new footbridges and two clip on bridges) and those parts of the Proposal that have the potential to affect the coastal environment.

The NZCPS sets out issues and challenges relevant to New Zealand's coastal environment, along with seven objectives and 29 policies which seek to preserve the natural character of the coastal environment and protect natural features and landscape values (Objective 2), maintain and enhance the public open space qualities and recreation opportunities of the coastal environment (Objective 4), recognise the role of tangata whenua as kaitiaki (Objective 3), and manage coastal hazard risks (Objective 5).

The Proposal has recognised the characteristics of the coastal environment and recognised and involved mana whenua including through a partnership approach. Particular consideration has been given to the need to carefully consider the importance of safeguarding ecological, natural character and landscape values, responding to existing and future risks from coastal hazards, and involving mana whenua in the development, detailed design and operation of the Proposal.

The Proposal will enhance access to the coastal environment and enhance the communities experience and appreciation of the areas' natural character values. It will restore connections, views and public

access to and along the coast and provide for connections to points of cultural significance for mana whenua.

The Proposal design has specifically considered coastal processes and potential effects on coastal hazards. The establishment of Te Ara Tipuna will have little or no effect on existing coastal hazards, based on the following:

- the track will be marked with simple way finding posts and earthworks will be minimised in sand dunes, unless required for the purposes of dune restoration or improvement of dune stability
- the track itself does not create a barrier to natural coastal processes
- if the track is threatened or damaged by coastal erosion, management actions will prioritise avoidance and adaptation of the track alignment over the construction of protection works
- the track does not include lowering of sand dunes or significant earthworks in coastal inundation areas, and will either avoid or be designed to withstand occasional coastal inundation in low-lying coastal margins
- coastal hazard risk is minimised by locating proposed structures (toilets, shelters and boardwalks) mostly outside coastal hazard areas, and any remaining coastal hazard risk can be mitigated through an adaptive management approach.

Although the establishment of the track is unlikely to affect coastal hazard processes, users of the track could be impacted by coastal hazards, and there is a risk of physical damage to the track over time in some places. There are sections of the track located close to erosional coastlines, and in some areas the road and/or other land-based assets are already threatened by coastal erosion, with little space to align the track further landward. In most of these areas, the track follows existing roads, and its maintenance will likely be integrated with the management of the road via agreement.

Predicting each of the many components of coastal erosion hazard comes with considerable uncertainty, particularly the long-term rate and effect of future sea level rise. The likely lifespan of a section of track close to the coast cannot be accurately predicted. Coastal erosion hazard can however be managed using an adaptive management approach, with monitoring and a range of triggers and actions that relate to the coastal hazard risk profile over time. This approach would provide for coastal sections of the track to be utilised while conditions allow, while planning for future actions to adapt to an increasing hazard risk over time and ensuring the objectives of Te Ara Tipuna are met in terms of resilience.

In low lying areas (particularly Tokomaru Bay and Tolaga Bay), the track may be periodically inundated during coastal storm events, either directly by storm surge, or by wave run-up and overwash close to the coast. This is only likely during rare and extreme events but is expected to become more frequent over time with projected sea level rise.

A “passport” system has been proposed, to provide track users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc). This system will include information about coastal hazards, including:

- avoiding damage in sand dune environments, by using defined accessways and tracks

- awareness of tides and storm surge (i.e. some portions of the track may not be safe during high stages of the tide, or during storm or high wave events)
- basic awareness of tsunami hazard (i.e. signs and actions)

Objective 6 relates to use and development of the coastal environment to enable people and communities to provide for their health and safety and social, economic, and cultural wellbeing. It recognises that there are some uses of activities and locations within the coastal environment that are appropriate. In this regard, the Proposal itself will use and develop the CMA (via footbridges and clip on bridges) and directly contribute to the social, economic and cultural wellbeing of people and communities through the provision of the walkway.

For the reasons set out above, the Proposal is considered consistent with the NZCPS.

8.2.3 National Policy Statement for Indigenous Biodiversity

The overall objective of the National Policy Statement for Indigenous Biodiversity (NPSIB) is to maintain indigenous biodiversity across Aotearoa New Zealand so that there is 'at least no overall loss in indigenous biodiversity after the commencement date'. It applies to the terrestrial environment only (as policy direction for biodiversity in the coastal marine area and freshwater is provided by the NZCPS and National Policy Statement on Freshwater Management (NPS-FM), respectively).

For the purposes of the NPS-IB, a significant natural area (SNA) is defined as either:

- Going forward, an area that is notified or included in a district plan using the process and criteria in Appendix 1 of the NPS-IB.
- As an interim measure, any area that is already identified in an (operative or proposed) policy statement or plan as an area of significant indigenous vegetation or significant habitat of indigenous fauna (this status applies unless or until a qualified ecologist engaged by the council determines otherwise; councils are also required to confirm within four years that the methodology followed in the earlier identification of the SNA was consistent with the NPS-IB).

The provisions of the NPS-IB are wide-ranging, but it has a particular focus on the identification and protection of SNAs and areas outside SNAs that support specified highly mobile fauna through RMA plans – in particular Subpart 2. Note the Resource Management (Freshwater and Other Matters) Amendment Act 2024 came into force on 25 October 2024 and suspends, for three years, the requirement under the NPS-IB for Councils to identify new SNAs and include them in district plans.

Section 3.10(2) of the NPS-IB directs that the following adverse effects on SNAs must be avoided:

a. loss of ecosystem representation and extent:
b. disruption to sequences, mosaics, or ecosystem function:
c. fragmentation of SNAs or the loss of buffers or connections within an SNA:
d. a reduction in the function of the SNA as a buffer or connection to other important habitats or ecosystems:

e. a reduction in the population size or occupancy of Threatened or At Risk (declining) species that use an SNA for any part of their life cycle

During the pre-consenting phase, in-depth desktop analyses were undertaken to determine locations where the route passed through sites with high ecological value, of which some are identified as SNAs. The track was realigned to avoid any adverse effects on those significant values in the first instance where possible. In some situations, there are no practicable alternative locations to realign the track from traversing through SNA areas. The track maps and the ecological report identify the SNA areas through which the track will traverse. An overall figure is shown below in **Figure 7** with SNA areas shown in red:

Figure 7 – Locations of Sites of Ecological Significance Potentially Affected by Te Ara Tipuna identified by TEC and Atkins, 2023

Vegetation clearance and disturbance associated with trail construction has the potential to affect areas of remnant native forest, regenerating forest, rare plant species and the habitats of protected native fauna such as birds, bats and lizards. The value of these areas of vegetation and habitat that the trail passes through, and the potential effects will be assessed in the detailed design phase of each stage. These effects will be managed by applying the effects management hierarchy. Where the potential level of effects is moderate or higher, the first step will be to consider whether the design can be modified to first avoid the effect and then to reduce the level of effect to low or negligible. Where this is not possible, an Environmental Management Plan will be developed, which will outline the mitigation or offset required to address the potential effects. This could include fauna management plans for bats, lizards or birds, implementation of arborist advice, restoration of an area, replanting, offset planting and weed control. This management will ensure that adverse effects on the SNAs will be avoided.

Given the above, the proposal is considered to be consistent with the NPS-IB.

8.2.4 National Policy Statement for Highly Productive Land

The new National Policy Statement for Highly Productive Land (NPS-HPL) is about ensuring the availability of New Zealand's most favourable soils for food and fibre production, now and for future generations. The policy provides direction to improve the way highly productive land is managed under the RMA.

The NPS-HPL requires regional councils, within three years from commencement, to notify maps of "highly productive land" in regional policy statements (which territorial authorities must then include in district plans). Highly productive land is defined as land that is:

- zoned general rural zone or rural production zone;
- predominantly identified within Land Use Class ('LUC') 1, 2, or 3; and
- forms a large and geographically cohesive area.

Councils may also categorise land that is not LUC 1, 2 or 3 but is highly productive land based on the soil type, physical characteristics, or climate of the area as 'highly productive land'. Land which is identified for future urban development at the commencement date cannot be classified as highly productive land.

While the mapping process is underway, territorial authorities must still apply the NPS-HPL to land which is both zoned general rural or rural production and LUC 1, 2 or 3 land, and is not identified for future urban development or subject to a plan change to rezone it from general rural or rural production to urban or rural lifestyle.

The Proposal will cross some areas of LUC 1, 2 or 3 land.

Inappropriate use and development (essentially, those other than land-based primary production uses) of highly productive land is to be avoided, but Section 3.9 (2) of the NPS-HPL provides a list of activities that are not deemed to be 'inappropriate' for the purposes of this restriction. These exceptions include

activities which are for a RMA section 6 purpose (i.e. one of the matters of national importance listed in s6 of the RMA). The Proposal is for a section 6 purpose namely,

> *(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
>
> *(e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*

The Proposal will enhance public access to and along the coastal marine area and rivers. It will also provide a multitude of benefits for Māori and will restore connectivity and momentum in the daily life of those who live and work in rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. It will also enable local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday aitieki of the ara and the people who traverse them, locals, and manuhiri alike.

As such, the Proposal is considered consistent with the NPS-HPL.

8.2.5 National Policy Statement for Freshwater Management

The objective of the National Policy Statement for Freshwater Management (NPS:FM) is *to ensure that natural and physical resources are managed in a way that prioritises:*

(a) first, the health and well-being of water bodies and freshwater ecosystems
(b) second, the health needs of people (such as drinking water)
(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Policies 1 and 2 seek to ensure that freshwater is managed in a way that gives effect to Te Mana o te Wai and that tangata whenua are actively involved in freshwater management. Policies 6 and 7 seek to ensure that there is no further loss of extent of natural inland wetlands and that the loss of river extent and values is avoided to the extent practicable. Policy 15 seeks to ensure that communities are enabled to provide for their social, economic and cultural wellbeing in a way that is consistent with this National Policy Statement.

The Proposal has been designed in a manner to avoid adverse effects on freshwater (including ensuring there is no further loss of extent of natural inland wetlands and river extent) and is therefore consistent with the relevant policies of the NPS:FW, for the following reasons:

- The track alignment avoids all wetlands and rivers identified in the relevant Council maps.
- Should any wetlands be identified during detailed design, the track will be realigned to avoid them if possible. If it is not possible to avoid said wetlands, the consenting pathway for

wetland utility structures[1] i.e. boardwalks as a Restricted Discretionary activity through the NES:FW will be used.

- Sediment and erosion measures will be utilised when earthworks are undertaken to minimise any water quality effects.
- The Proposal involves culverts and clip on bridges. All structures and works will be undertaken in accordance with best engineering practices. With regard to culverts, these will be sized as appropriate and will provide for fish passage.

As such, the Proposal is considered consistent with the NPS-FM.

8.2.6 Heritage New Zealand Pouhere Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. Any work that may affect an archaeological site requires an authority from Heritage New Zealand before commencement.

A Heritage Assessment has been prepared by Insitu Archaeological Heritage – a copy of such is included in Appendix 9.

Where there is evidence that Stage 1 of Te Ara Tipuna passes over or through archaeological or historic heritage sites, further archaeological assessment will be required at detailed design stage in those areas to identify the specific effects of track construction on sites. This assessment will follow Heritage New Zealand Pouhere Taonga guidelines and will include archaeological field survey and fine-grained desk-based analysis.

In areas where the further assessment identifies construction of the ara will have effects on archaeological sites, an application will be made under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 for a general authority to modify or damage archaeological sites prior to all ground disturbing works. The effect on sites will be mitigated in a variety of ways including, modification of the route to avoid visible surface features, archaeological monitoring and excavation and construction methodologies that minimise the potential for effects and limit ongoing visitor impacts.

[1] **wetland utility structure**—
(a)
means a structure placed in or adjacent to a wetland whose purpose, in relation to the wetland, is recreation, education, conservation, restoration, or monitoring; and (b) for example, includes the following structures that are placed in or adjacent to a wetland for a purpose described in paragraph (a):

(i) jetties:
(ii) boardwalks and bridges connecting them:
(iii) walking tracks and bridges connecting them:
(iv) signs:
(v) bird-watching hides:
(vi) monitoring devices:
(vii) maimai

Further, Te Ara Tipuna traverses a rich and unique archaeological and cultural landscape. Some places in the landscape are well-known, such as Hikurangi Maunga, but many sites remain obscure or may only be revealed by ground disturbance. Te Ara Tipuna is envisaged as a track that reconnects people (tangata whenua), the Iwi diaspora, with ancestral landscapes through the ability to visit and physically experience the place. Te Ara Tipuna also offers a unique opportunity to raise the awareness of the wider visitor population to the people, places and past of Te Tairāwhiti and Te Moana a Toi. The track offers the opportunity of access to a number of well-preserved archaeological sites, which will enhance the amenity value of many sites. The visitor experience and understanding of places will also be aided through the provision of interpretation. Careful routing of the track in combination with planting and devices to guide movement will in many cases improve the conservation of sites by enhancing site stability and condition. Mitigation of effects through the provisions of the Heritage New Zealand Pouhere Taonga Act, providing for appropriate archaeological monitoring, investigation and recording will also enhance understanding of the nature and extent of the archaeological resource of Te Tairāwhiti and eastern Te Moana a Toi.

Given the above, the Proposal is considered to be consistent with the provisions of the Heritage New Zealand Pouhere Taonga Act.

8.2.7 Tairāwhiti Plan Regional Policy Statement

The Regional Policy Statement (RPS) is incorporated into the Te Papa Tipu Taunaki o Te Tairāwhiti (The TRMP) as Part B. The purpose of the RPS is to promote the sustainable management of the region's natural and physical resources by:

- setting out the significant resource management issues for the region;
- identifying the resource management issues of significance to iwi authorities in the region; and
- providing policies and methods to achieve integrated management of the region's natural and physical resources.

Part B has nine sections, All, except B2 – Air Quality, are applicable to the Proposal:

- B1 Tangata Whenua
- B3 Built Environment, Energy and Infrastructure
- B4 Coastal Environment
- B5 Environmental Risk including Natural Hazards
- B6 Freshwater
- B7 Cultural and Historic Heritage
- B8 Land Management
- B9 Natural Resources

Tangata Whenua

Section B1.1 – Involvement of Tangata Whenua in Resource Management, explains the Māori environmental resource management system, domains of the environment from the Māori perspective, the domains of atua, moana, waiora a tane, the principles of the Treaty of Waitangi, recognition of kaitiakitanga and important concepts in Māoridom.

It also sets out the Council's view on engagement with tangata whenua, with reference to some case law, and the legislative framework surrounding iwi resource management strategies and plans.

Sections B1.2 to B1.5 sets out four issue-based sets of objectives, policies and methods, directed at taking into account the principles of the Treaty of Waitangi (B1.2), recognising kaitiakitanga (B1.32) and recognising the relationships Māori have with their culture, traditions, ancestral lands and other resources (B1.4), and tangata whenua and freshwater (B1.5).

The later policy set records the Crown statutory acknowledgements in place over water bodies.

Te Ara Tipuna Charitable Trust is the applicant. The Project, of which the Proposal is Stage 1, is multi-layered and provides significant and wide-ranging benefits. The purpose of Te Ara Tipuna is to enrich and uplift the cultural, social, and economic status of the whānau, hapū, iwi and communities of Te Tairawhiti, their resources and authority over their way of life, and wellbeing of their natural and built environment. In doing so, the Proposal for Te Ara Tipuna is informed by the principles of the partnership, protection and participation. As such, it is considered that the Proposal is consistent with the objectives and policies in this section.

Built Environment, Infrastructure and Energy

Section B3.1 - Energy Management – Introduction, backgrounds the ensuing issue-based objectives and policies on 'inefficient use of energy' in B3.2 and the 'Gisborne regions dependence on non- renewable resources' in B3.3. Both sets of objectives and policies are of very limited relevance to the Proposal.

Section B3.4 – Transport and Infrastructure – Introduction acknowledges the importance of Efficient transport, communications and energy distribution networks and services for goods and people in the Gisborne district given it is geographically large with a dispersed rural population. B3.5 contains two objectives and six policies relating to 'safe, efficient and convenient; transport services and efficient development, operation and maintenance of network utilities.

The purpose of the Proposal is to provide efficient, robust and alternative transport in the region and is therefore consistent with the objective and policies in this section.

Coastal Management

Section B4 – Coastal Management, has a number of issue-based sets of objectives, policies and methods, along with cross references to wider ranging provisions in other chapters that apply to a variety of different environments. The three sets of objectives policies and methods that are relevant to this Proposal are as follows:

- B4.2 – The effects of activities that straddle administrative boundaries under the RMA.
- B4.3 – The effects of some activities that may destroy or damage coastal natural character.
- B4.4 - Activities that can inhibit natural processes or degrade the ability of natural features and resources to sustain life.
- B4.5 – Maintenance and enhancement of public access to and along the coastal marine area.
- B4.6 – Avoiding or mitigating effects of natural hazards on human structures or values

The Project of which the Proposal is Stage 1 has specifically considered coastal natural character, coastal processes and potential effects on coastal hazards. The establishment of Stage 1 will have little or no effect on existing coastal hazards, based on the following:

- the track will be marked with simple way finding posts and earthworks will be minimised in sand dunes, unless for the purposes of dune restoration or improvement of dune stability
- the track itself does not create a barrier to natural coastal processes
- if the track is threatened or damaged by coastal erosion, management actions will prioritise avoidance and adaptation of the track alignment over the construction of protection works
- the track does not include lowering of sand dunes or significant earthworks in coastal inundation areas, and will either avoid or be designed to withstand occasional coastal inundation in low-lying coastal margins
- coastal hazard risk is minimised by locating proposed structures (toilets, shelters and boardwalks) mostly outside coastal hazard areas, and any remaining coastal hazard risk can be mitigated through an adaptive management approach.

The Proposal will provide significant benefits with regard to public access.

Given the above, the Proposal is considered to be consistent with the relevant objectives and policies in B4.

Environmental Risk, including Natural Hazards

Section B5 contains nine issued based sets of objectives and policies on environmental risk. Only the set on natural hazards in B5.1 is relevant to the Proposal.

Section B5.1 describes the natural hazards threats to the region, including coastal erosion and tsunami.

Although the establishment of the track is unlikely to affect coastal hazard processes, users of the pedestrian track could be impacted by coastal hazards, and there is a risk of physical damage to the track over time in some places. There are sections of the track located close to erosional coastlines, and in some areas the road and/or other land-based assets are already threatened by coastal erosion, with little space to align the track further landward. In most of these areas, the track follows existing roads, and its maintenance will likely be integrated with the management of the road.

Predicting each of the many components of coastal erosion hazard comes with considerable uncertainty, particularly the long-term rate and effect of future sea level rise. The likely lifespan of a section of track close to the coast cannot be accurately predicted. Coastal erosion hazard could be managed using an adaptive management approach, with monitoring and a range of triggers and actions that relate to the coastal hazard risk profile over time. This approach would provide for coastal sections of the track to be utilised while conditions allow, while planning for future actions to adapt to an increasing hazard risk over time and ensuring the objectives of Te Ara Tipuna are met in terms of resilience.

A “passport” system has been proposed, to provide track users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc). This system will include information about coastal hazards, as set out in Section 5.1.9 of this report.

Given the above, the Proposal is considered to be consistent with the relevant objectives and policies in B5.

Freshwater

Section B6 – Freshwater, has one issue-based set of objectives, policies and methods, directed at significant resource management issues for freshwater.

The Proposal has been designed in a manner to avoid adverse effects on freshwater. No works are proposed within wetlands. Sediment and erosion measures will be utilised when earthworks are undertaken to minimise any water quality effects. The Proposal is therefore consistent with the objectives and policies within B6.

Cultural and Historic Heritage

Section B7 – Cultural and Historic Heritage, has one issue-based set of objectives, policies and methods, directed at protection of recorded sites, including historic places and waahi tapu. The InSitu Heritage report has identified actual and potential effects on cultural and historic heritage sites.

The Proposal will protect historic heritage but importantly it will also raise awareness of historic heritage through information boards and the like.

Land Management

Section B8 contains three issue-based sets of objectives and policies on 'soil erosion and erosion prone land' 'detrimental effects of pests' and 'loss of productive/versatile soils.' The last two sets are not applicable to the Proposal and the first set is only of relevance in that the site earthworks, if improperly managed, could lead to some soil erosion and discharges. The measures proposed in conditions, including the preparation of detailed design plans which will include erosion and sediment control measures, will ensure this does not happen and the applicable objectives and policies are met.

Natural Resources

Section B9 has two issue-based sets of objectives, policies and methods, relating to 'natural values' and 'public access.' Both are relevant to the Proposal.

The B9.1 'natural values' policy set cover 'natural character, outstanding natural features and landscapes' and 'significant indigenous vegetation/habitats.' They provide very little additional direction over these same matters in Part 2 of the RMA and the NZCPS, which have been addressed earlier in this report.

The B9.2 policy set on public access focus on maintenance and enhancement of public access to the CMA and other water bodies. It does recognise that while public access is a matter of national importance, there can be a conflict of interest where access needs to be discouraged because areas have sensitive cultural values, natural character, ecological values or safety concerns.

The process of confirming the concept alignment has followed an iterative process with the wider Project Team of effects specialists in order to address the potential conflicts identified above. The location of the track and its formation has been specifically considered with regard to sensitive cultural

values, natural character, ecological values and/or safety concerns. The Proposal is considered consistent with these objectives and policies.

Summary

Given the above, the Proposal is considered to be consistent with the relevant objectives and policies of the RPS.

8.2.8 Tairāwhiti Resource Management Plan

The TRMP is a unitary plan that combines the regional and district provisions into a single document. These provisions are primarily contained within Parts C and D of the TRMP. The relevant objectives and policies of the TRMP are discussed and assessed in the sections below.

C2 Built Environment, Infrastructure and Energy

The objectives and policies recognise the importance of enhancing the wellbeing of people and communities through the provision and maintenance of core infrastructure. The Proposal will provide connectivity and resilience to the East Coast and provides infrastructure that enables people and communities to provide for and enhance their environmental, social, cultural and economic well-being while avoiding, as far as practicable, remedying or mitigating any adverse effects on the environment.

The Proposal is considered to be consistent with the objectives and policies in this section of the plan.

C3 Coastal Management

The objectives and policies seek to preserve the natural character of the coastal environment, wetlands, rivers, lakes and their margins within the Coastal Environment as well as preserving public access.

The Proposal adopts a range of measures to ensure that the key vales of the coastal environment are protected, including its natural character, landscape features and significance to Iwi. The effects of Te Ara Tipuna on ONFL, landscape, visual amenity, and natural character have been assessed and will be appropriate and less than minor. The inclusion of clip on bridges and new foot bridges within and adjacent to the CMA supports the policy to enhance public access to the CMA. The Project shaping stages, including iterative review and feedback on landscape matters, have confirmed an alignment and options for path types and new structures that bring a focus on avoiding adverse effects and practicable mitigation measures, as included in the LMP. Landscape matters to resolve in the detailed design phase relate to both detailed alignment and response to site, to further reduce adverse effects and provide for greater benefits.

C4 Cultural and Historic Heritage

The general objectives and policies seek recognition and protection of the cultural heritage resources within the Region.

The Proposal will do both.

The Proposal traverses a rich and unique archaeological and cultural landscape. Some places in the landscape are well-known, such as Hikurangi Maunga, but many sites remain obscure or may only be

revealed by ground disturbance. The Proposal is envisaged as a track that reconnects people (tangata whenua), the Iwi diaspora, with ancestral landscapes through the ability to visit and physically experience the place. The Proposal also offers a unique opportunity to raise the awareness of the wider visitor population to the people, places and past of Te Tairāwhiti and Te Moana a Toi. The track offers the opportunity of access to a number of well-preserved archaeological sites, which will enhance the amenity value of many sites. The visitor experience and understanding of places will also be aided through the provision of interpretation. Careful routing of the track in combination with planting and devices to guide movement will in many cases improve the conservation of sites by enhancing site stability and condition. Mitigation of effects through the provisions of the Heritage New Zealand Pouhere Taonga Act, providing for appropriate archaeological monitoring, investigation and recording will also enhance understanding of the nature and extent of the archaeological resource of Te Tairāwhiti and eastern Te Moana a Toi.

The Proposal is consistent with the objectives and policies of Chapter C4, as they relate to cultural and historic heritage sites.

C6 – Freshwater

The objectives and policies in C6.3 – Activities in the Beds of Rivers and Lakes – are relevant to the assessment of this Application as are the objectives and policies in C6.4 – Riparian Margins, Wetlands and C6.5 – Watercourses.

The Proposal involves culverts, bridges and earthworks. All structures and works will be undertaken in accordance with best engineering practices. With regard to culverts, these will be sized as appropriate and will provide for fish passage. Earthworks will be both temporary and short term and erosion and sediment control measures will be in place. Pedestrian clip on bridges are required to traverse watercourses where the existing bridge is too narrow to safely provide for pedestrians; the clip ons will be attached to the existing bridge thus reducing any effects on natural character, they will be structurally designed and will be resilient to natural hazards. Wetlands have been avoided through placement of the track.

Given the above the Proposal is consistent with the relevant objectives and policies of Chapter C6.

C7 – Land Management

All the land disturbance and soil removal will be managed on site to ensure local or global instability does not arise. Appropriate silt and sediment controls will be put in place prior to the commencement of the works to ensure adverse run off effects do not arise. Vegetation clearance is limited with existing tracks (formal or informal) being used where possible and avoidance of vegetated areas being the first response. For these reasons the Proposal is considered consistent with the relevant objectives and policies of Chapter C7.

C8 – Natural Hazards

As set out above, although the establishment of the track is unlikely to affect coastal hazard processes, users of the track could be impacted by coastal hazards, and there is a risk of physical damage to the track over time in some places. There are sections of the track located close to erosional coastlines, and in some areas the road and/or other land-based assets are already threatened by coastal erosion, with

little space to align the track further landward. In most of these areas, the track follows existing roads, and its maintenance will likely be integrated with the management of the road.

A "passport" system has been proposed, to provide track users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc). This system will include information about coastal hazards, as set out in Section 5.1.9 of this report
Given the above, the Proposal is considered to be consistent with the relevant objectives and policies in C8.

C9 – Natural Heritage

This chapter considers the issues and sustainable management of the natural heritage resources of the Gisborne district, including:

a. Natural character of wetlands, lakes and rivers and their margins
b. Outstanding natural features and landscapes;
c. Areas of significant indigenous vegetation and significant habitats of indigenous fauna;
d. Ridgelines of the Gisborne urban area; and
e. Intrinsic values of ecosystems, including indigenous biodiversity.

The Project shaping stages, including iterative review and feedback on all of the above matters by experts, have confirmed an alignment and options for path types and new structures that bring a focus on avoiding such adverse effects and including practicable mitigation measures where required. In aiming to keep with the natural environment and provide an immersive experience for users, approximately 90% of the track is proposed to remain relatively untouched with the track composition to emulate that of a farm track.

C11 – General Controls

The provisions in C11.1 relating to signs are relevant to the assessment of the Proposal.

The track is planned to sit lightly with the land and coastlines. The vast proportion of the track (90 percent – approximately 450kms) will be following low key consistent wayfaring signage across paddocks, over hills, and along beaches in their natural state.

DC2 General Coastal Management Area, DD4 Rural Zones and D5 Reserve Zones

The track extends through various zones. A pedestrian track is not specifically provided for in the rural zones; the most relevant objectives and policies DD4 are about protecting amenity values. The track itself is planned to sit lightly on the land and has been located away from dwellings and other activities where possible, the passport system will guide users of the track to the behaviours expected and as well as any site-specific requirements. Consultation and engagement with landowners is ongoing. From a civil perspective, landowner approval will be required to place the track over private land (i.e. the track will only be over land where landowners have provided their approval).

The Proposal is entirely consistent with the objectives and policies as they relate to reserve zones i.e providing for public access while managing adverse effects on the environment.

Summary

Given the above, the Proposal is considered to be consistent with the relevant objectives and policies of the TRMP.

8.2.9 Bay of Plenty Regional Natural Resources Plan

The purpose of the RNRP is to promote the sustainable and integrated management of land and water resources within the Bay of Plenty.

To achieve this, the RNRP has objectives, policies and methods (which include rules) to address issues of use, development and protection of land resources, geothermal resources and freshwater resources, including the beds and margins of water bodies. The resources covered by the Regional Natural Resources Plan are:

- Rivers and streams
- Lakes
- Wetlands
- Groundwater
- Geothermal
- Natural Hazards
- Air

Chapter 5 – Land Management and Chapter 8 – Beds of Water Bodies are most relevant to the assessment of this Application.

All the land disturbance and soil removal will be managed on site to ensure local or global instability does not arise. Appropriate silt and sediment controls will be put in place prior to the commencement of the works to ensure adverse run off effects do not arise. Vegetation clearance is limited with existing tracks (formal or informal) being used where possible and avoidance of vegetated areas being the first response. For these reasons the Proposal is consistent with the relevant objectives and policies of Chapter 5.

The Proposal involves culverts, bridges and earthworks. All structures and works will be undertaken in accordance with best engineering practices. With regard to culverts, these will be sized as appropriate and will provide for fish passage. Earthworks will be both temporary and short term and erosion and sediment control measures will be in place. Pedestrian clip-on bridges are required to traverse watercourses where the existing bridge is too narrow to safely provide for pedestrians the clip ons will be attached to the existing bridge thus reducing any effects on natural character, they will be structurally designed and will be resilient to natural hazards. Wetlands have been avoided through placement of the track. Given the above, the Proposal is consistent with the relevant objectives and policies of Chapter 8.

The Proposal is considered to be consistent with the relevant objectives and policies of the RNRP.

8.2.10 Bay of Plenty Regional Coastal Plan

The Regional Coastal Plan (RCP) provides policy guidance on decision making as it applies to the area landward of the CMA. The track traverses throughout the 'Coastal Environment' which is indicated on the Ōpōtiki District Plan planning maps, as well as Indigenous Biological Diversity Area A (IBDA A), Indigenous Biological diversity Area B (IBDA B) and outstanding ONFL which requires consideration of the relevant policies.

The IBDA A have been identified as areas that met the criteria contained in policy 11 (a) of the NZCPS, with the IBDA B including those areas that met the criteria contained in policy 11 (b) of the NZCPS. The application of policy 15(c) of the NZCPS is through the identification of ONFL.

The RCP outlines policies around what is considered appropriate use and development as it relates to those significant areas with the requirement to avoid adverse effects on the values and attributes afforded to those areas. The RCP includes provision for public walking to and along the CMA that will maintain or enhance those values and attributes associated to those areas.

It is considered that the proposed track, through the reiterative design process, construction and design methodology, requirement for pre-construction ecological assessments, as well as design considerations tailored by the LMP, will maintain those values attributed to areas and the development is in keeping with the policies of the RCP.

8.2.11 Ōpōtiki District Plan

The most relevant objectives and policies within the Ōpōtiki District Plan (ODP) as they relate to the Proposal and the consents required under the ODP are those within Chapter 13 – Earthworks, Landscapes, Indigenous Vegetation and Habitats as well as those in Chapter 18 – Natural Hazards.

The Project shaping stages, including iterative review and feedback on all of the above matters by experts, have confirmed an alignment and options for path types and new structures that bring a focus on avoiding adverse effects on earthworks, landscapes, indigenous vegetation and habitats and including practicable mitigation measures where required. In aiming to keep with the natural environment and provide an immersive experience for users, approximately 90% of the track is proposed to remain relatively untouched with the track composition to emulate that of a farm track. For these reasons the Proposal is consistent with the relevant objectives and policies of Chapter 13.

As set out above, although the establishment of the track is unlikely to affect coastal hazard processes, users of the track could be impacted by coastal hazards, and there is a risk of physical damage to the track over time in some places which will need to be monitored. A "passport" system has been proposed, to provide track users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc) and will include information about natural hazards. For these reasons the Proposal will be consistent with the relevant objectives and policies in Chapter 18.

9. Other Matters

9.1 Marine and Coastal Area (Takutai Moana) Act 2011

The Marine and Coastal Area (Takutai Moana) Act 2011 provides for the special status of the common marine and coastal areas as an area that is incapable of ownership.

The common marine and coastal area is the area between the line of mean high water springs (the landward boundary of the part of the beach covered by the ebb and flow of the tide) and the outer limits of the territorial sea (12 nautical miles) excluding existing private titles, the bed of Te Whaanga Lagoon in the Chatham Islands and certain conservation areas.

The below maps provide an overview of the four areas identified as needing to traverse the coastal marine area (*CMA*), including:

- Red: Crossing over the Awatere River requires a clip-on bridge
- Green: Crossing over the Karakatuwhero River requires a clip-on bridge
- Blue: New foot bridge over Kaitawa Stream- Opoutama
- Yellow: New footbridge over the Waiomoko River at Whangara

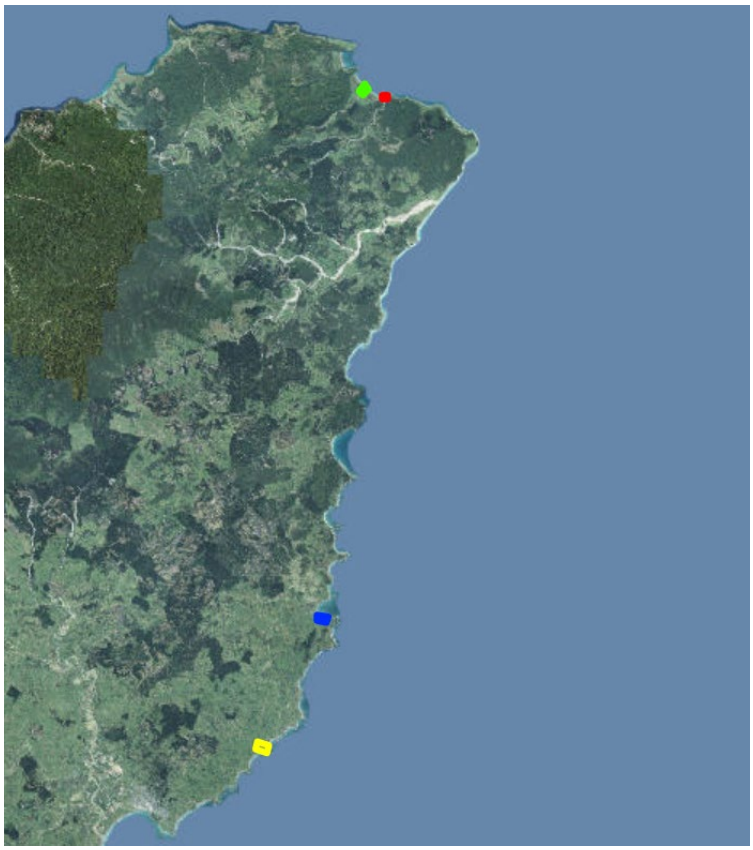


Figure 8 – Areas where project extends into CMA

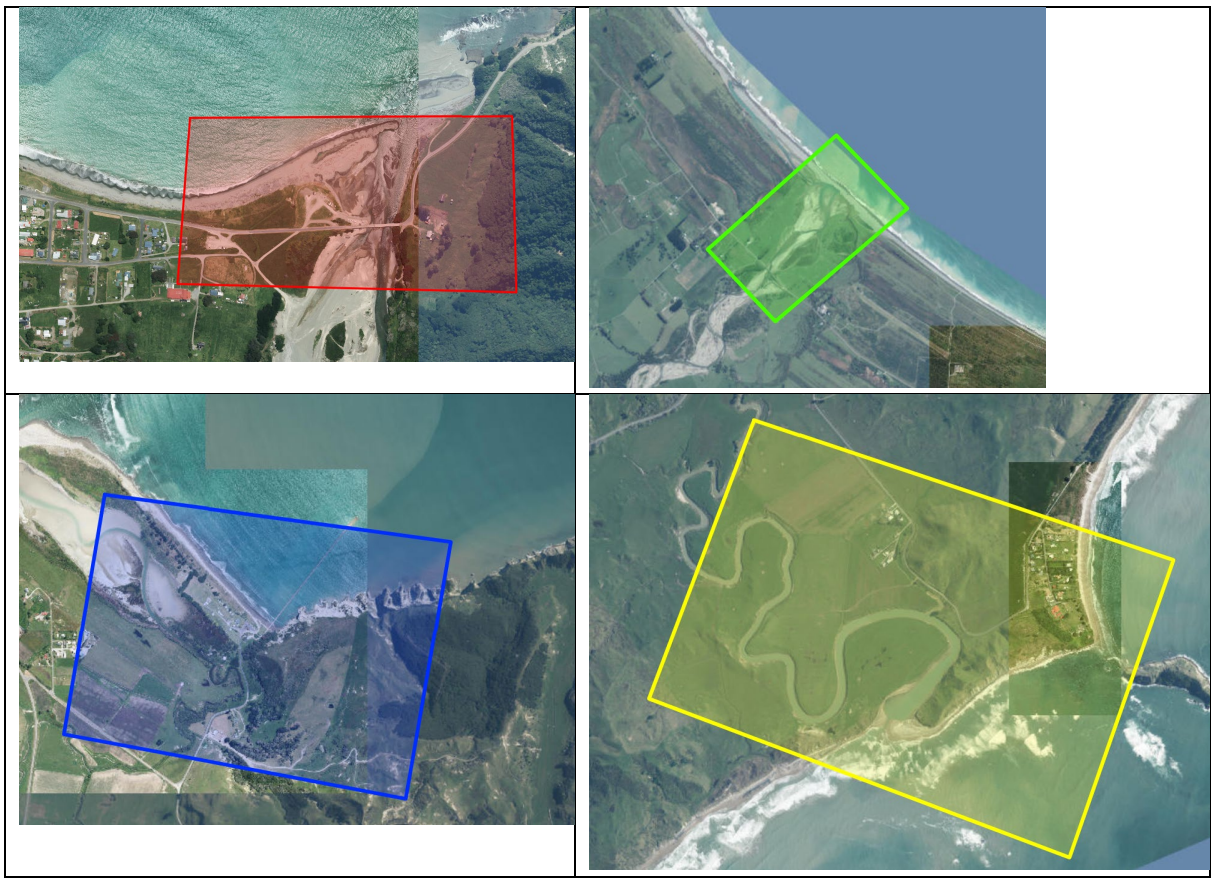


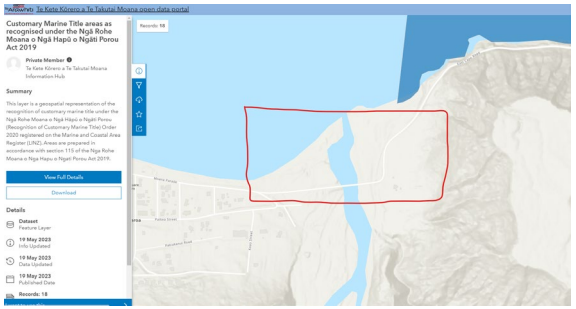
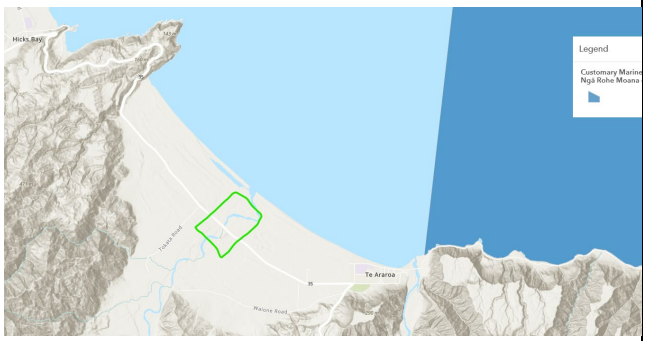
Figure 9 – Close-up of the areas where project extends into CMA

Under the Marine and Coastal Area (Takutai Moana) Act 2011, any organisation or person that has applied for customary title in the area of the CMA affected by the Proposal must be notified and their views sought on the Proposal.

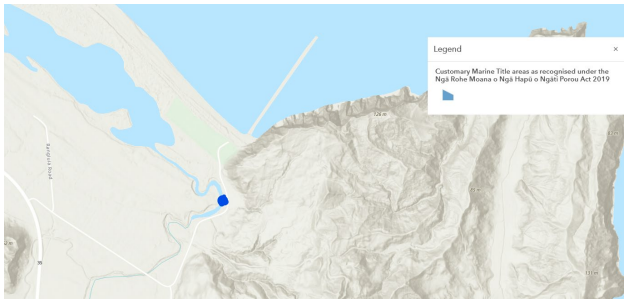
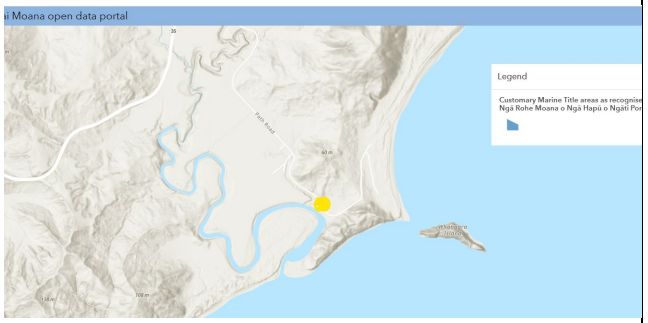
Table 2 below outlines the CMT areas recognised by the Ngā Rohe Moana o Ngā Hāpū o Ngāti Porou (Recognition of Customary Marine Title) Order 2020 and their proximity to the Project area, using this geospatial mapping tool: https://takutai-moana-data-portal-maca-nds.hub.arcgis.com/datasets/maca-nds::customary-marine-title-areas-as-recognised-under-the-ng%C4%81-rohe-moana-o-ng%C4%81-hap%C5%AB-o-ng%C4%81ti-porou-act-2019/explore?location=-38.447544%2C178.366629%2C10.31 Overall, there is one CMT area in close proximity to the Project, near the crossing over the Awatere River that requires a clip-on bridge (identified in red below). However, the proposed bridge does not appear to traverse the CMT area recognised by the order. For completeness, the details of the CMT area and relevant management arrangement details are:

- Description: Area of Awatere River to Waipapa Stream
- Hapū: Te Whānau a Hunaara
- Management arrangement: Potikirua ki Whangaokena Takutai Kaitiaki Trust
- Schedule 1
- Area number: First Area
- Effective Date: 1 February 2021

Table 2: CMT areas recognised by the Ngā Rohe Moana o Ngā Hāpū o Ngāti Porou

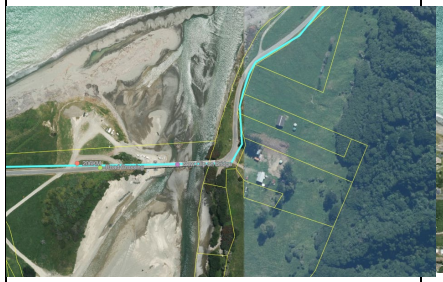
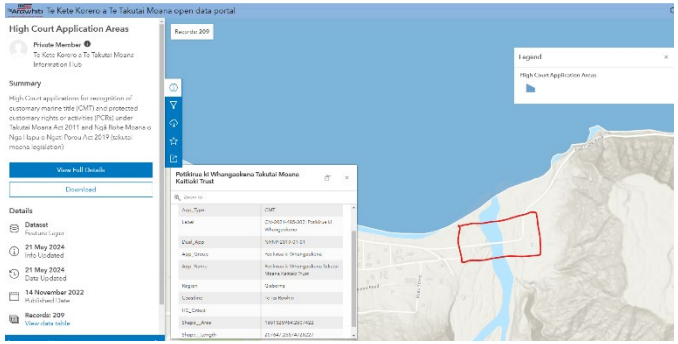
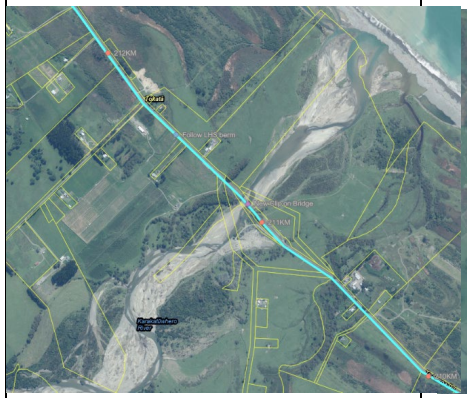
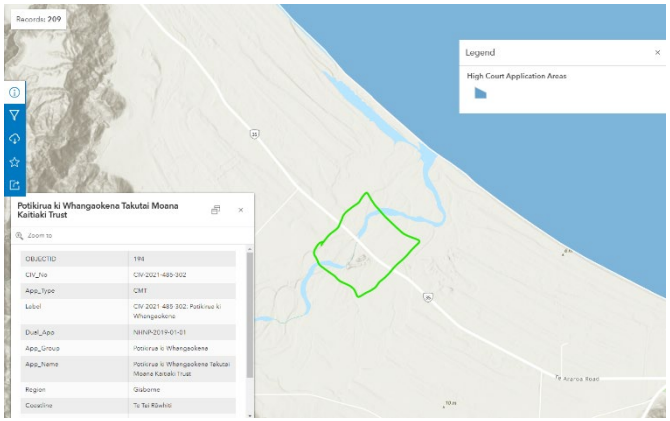
NGĀ ROHE MOANA O NGĀ HĀPŪ O NGĀTI POROU			
Location	**Map of areas identified as within the coastal marine area**	**General proximity of Project area**	**Customary Marine Title order areas[2] with Project area identified**
Crossing over the Awatere River requires a clip on bridge			
Crossing over the Karakatuwhero River requires a clip-on bridge			

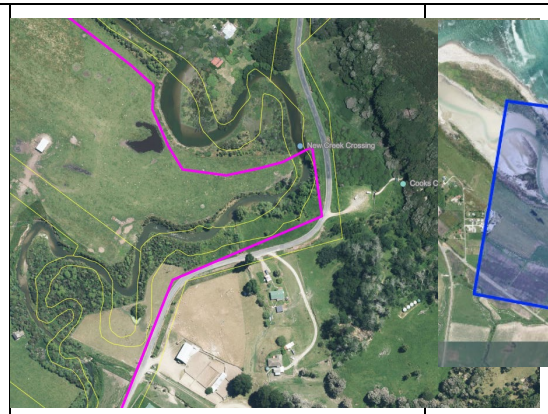
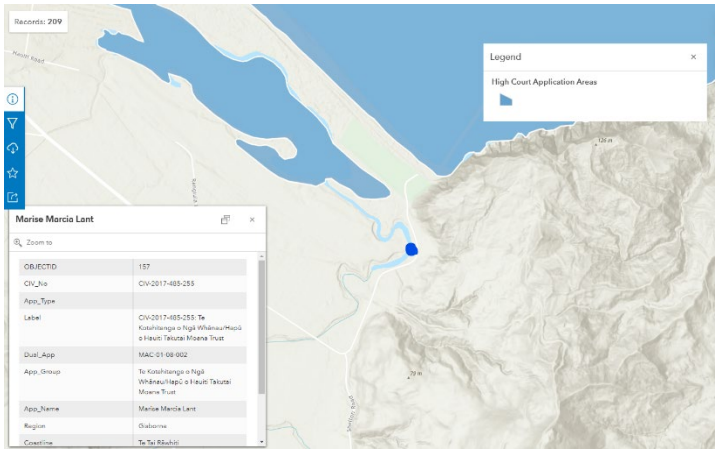
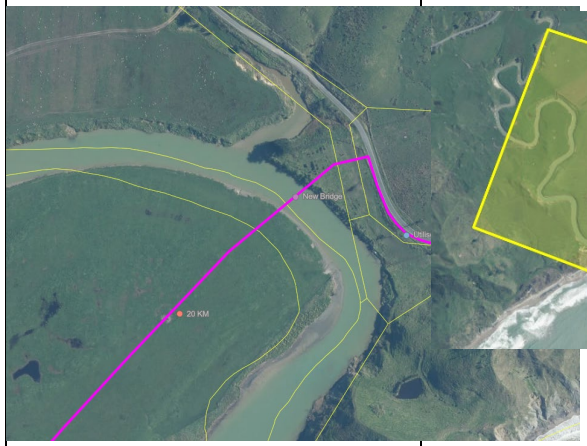
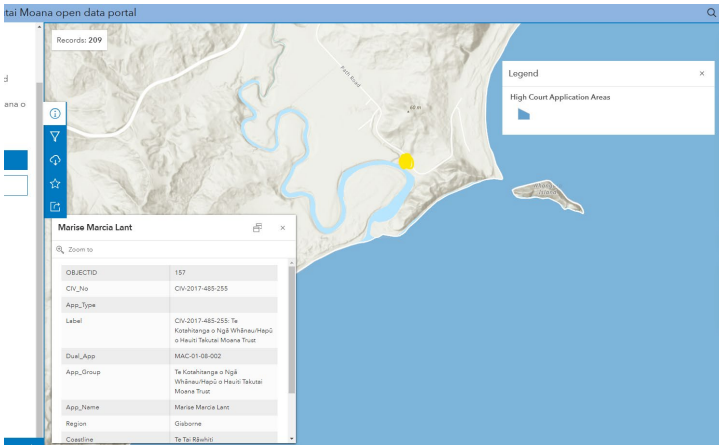
[2] This layer is a geospatial representation of the recognition of customary marine title under the Ngā Rohe Moana o Ngā Hāpū o Ngāti Porou (Recognition of Customary Marine Title) Order 2020 registered on the Marine and Coastal Area Register (LINZ). Areas are prepared in accordance with section 115 of the Nga Rohe Moana o Nga Hapu o Ngāti Porou Act 2019.

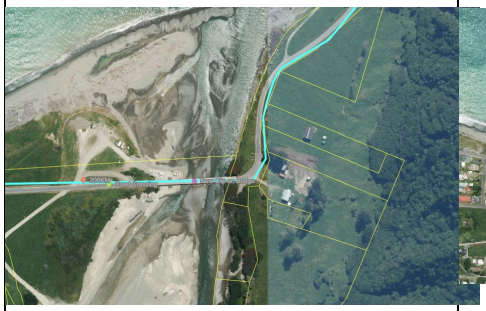
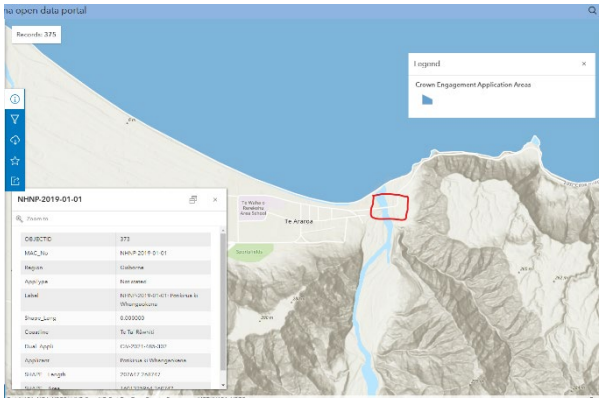
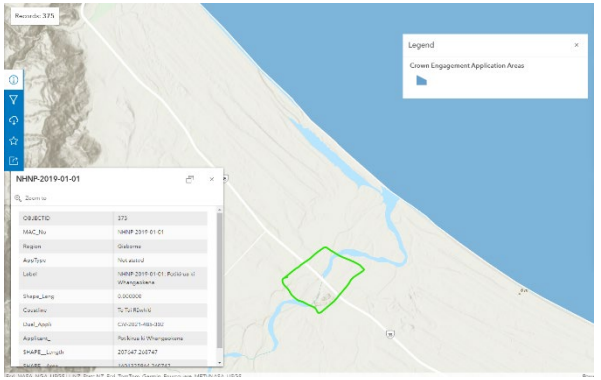
New foot bridge over Kaitawa Stream- Opoutama			
New footbridge over the Waiomoko River at Whangara			

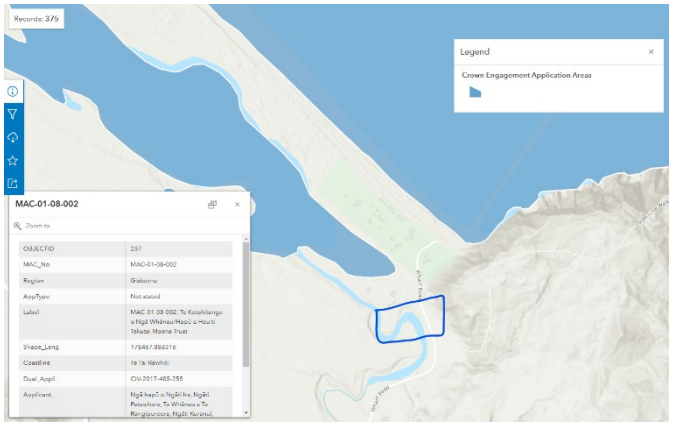
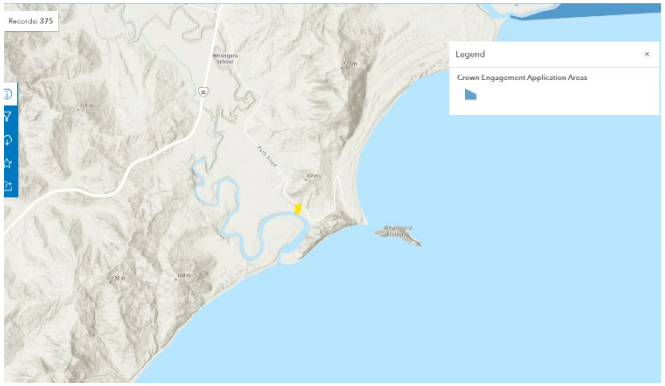
CUSTOMARY MARINE TITLE ORDER AREAS
Under MACA (subpart 3 of part 4), Land Information New Zealand is responsible for maintaining a marine and coastal area register as a permanent record of documents relating to customary marine interests. The following website identifies 19 areas where CMT orders have been recognised. 18 of these fall within the NHNP areas identified above, and there's one additional area Customary Marine Title Order: Tamaitemioka and Pohowaitai Islands which is located near Stewart Island and is therefore not relevant.

CUSTOMARY MARINE TITLE ORDER AND PROTECTED CUSTOMARY RIGHTS APPLICATION AREAS UNDER MACA
The Courts of New Zealand website identifies the scheduled and completed MACA hearings. Reviewing this website, there are 10 completed hearings (with 6 decisions that have been made) and 5 scheduled hearings as at 31 October 2024. However, there are a number of other areas where applications have been made. The below maps identify the High Court applications for recognition of CMT and protected customary rights or activities (PCRs) under MACA and Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019, using this geospatial mapping tool: https://takutai-moana-data-portal-maca-nds.hub.arcgis.com/datasets/c8eb6daf011548d3941b265f8cb5ca07_0/explore?location=-38.090630%2C-0.963625%2C8.97 The Te Arawhiti website also outlines a list of applications that have been made for recognition of customary interest from the Crown. The following maps also identify the applications for CMT and PCRs under MACA and NHNP: https://takutai-moana-data-portal-maca-nds.hub.arcgis.com/datasets/54f7f207afae41019897f1360cdae0b8_0/explore?location=-38.439275%2C178.341530%2C10.99

HIGH COURT APPLICATION AREA			
Location	**Map of areas identified as within the coastal marine area**	**General proximity of Project area**	**Customary Marine Title / PCR application areas**
Crossing over the Awatere River requires a clip on bridge			
Crossing over the Karakatuwhero River requires a clip on bridge			

New foot bridge over Kaitawa Stream- Opoutama			
New footbridge over the Waiomoko River at Whangara			

CROWN ENGAGEMENT AREA			
Location	**Map of areas identified as within the coastal marine area**	**General proximity of Project area**	**Customary Marine Title / PCR application areas (Crown Engagement layer)**
Crossing over the Awatere River requires a clip on bridge			
Crossing over the Waiomoko River requires a clip on bridge			

New foot bridge over Kaitawa Stream- Opoutama			
New footbridge over the Waiomoko River at Whangara			

As detailed above, there are no direct overlaps between the project works and confirmed CMT order areas. Consequently, there is no prior approval needed to enable the application to be considered by Councils.

While there are no specific overlaps identified in the attached maps, there are four areas that have been identified within the project area that are the subject of CMT applications which are in relatively close proximity to the CMT applications that are yet to be determined. Namely, those shown in **Table 3** below:

Table 3: Areas identified in the project area that are the subject of CMT applications

Type	Description / Application label	Project area	Relevant management arrangement / applicant
Application	CIV-2021-485-302: Potikirua ki Whangaokena	Crossings over the Awatere River Crossing over Karakatuwhero River	Potikirua ki Whangaokena Takutai Moana Kaitiaki Trust
Application (not available, but note the Te Arawhiti online mapping software notes this is a dual application with CIV-2021-485-302 above)	NHNP-2019-01-01: Potikirua ki Whangaokena	Crossings over the Awatere River Crossing over Karakatuwhero River	Potikirua ki Whangaokena
Application	CIV-2017-485-255: Te Kotahitanga o Ngā Whānau/Hapū o Hauiti Takutai Moana Trust	New foot bridge over Kaitawa Stream- Opoutama New footbridge over the Waiomoko River at Whangara	Te Kotahitanga o Ngā Whānau/Hapū o Hauiti Takutai Moana Trust
Application (noting the Te Arawhiti online mapping software identifies this is a dual application with CIV-2017-485-255 above)	MAC-01-08-002: Te Kotahitanga o Ngā Whānau/Hapū o Hauiti Takutai Moana Trust (Nga Hapu o Kokoronui ki Te Toka a Taiau Takutai Kaitiaki Trust) (dual application with	New foot bridge over Kaitawa Stream- Opoutama	Ngā hapū o Ngāti Ira, Ngāti Patuwhare, Te Whānau a Te Rangipureora, Ngāti Kuranui, Ngāti Kahukuranui, and Ngāti Konohi

As the specific application areas have not yet been confirmed (and as such, unlike the order areas don't have defined boundaries) we have taken a conservative approach and notified each of the parties who have a CMT application in these areas. Refer to **Appendix 21**.

Any responses received will be considered and will be shared with the Councils.

We consider that those aspects of the TRMP, ODP and RNRP relevant to this Application have been 'competently prepared under the RMA, in the sense referred to by the Court of Appeal'.[3] The Councils are therefore not obliged to conduct an evaluation under Part 2 of the RMA, and Part 2 considerations should not be used to override the plan provisions. However, for the sake of completeness, and to remove any doubt, the following assessment against Part 2 has also been undertaken.

Part 2 of the RMA sets out the Purpose and Principles. Section 5 of the RMA sets out the overriding purpose, which is the sustainable management of natural and physical resources.

The RMA states that sustainable management means:

"managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life supporting capacity of air, water, soil and ecosystems; and

(c) Avoiding, remedying or mitigating any adverse effects of activities on the environment".

It is considered that the Proposal is not contrary with the RMA's purpose to "*promote the sustainable management of natural and physical resources"*. The Proposal has been designed and located in a manner that mitigates adverse effects on the environment and will enable people and communities to provide for their social and cultural well-being. Notably as it will enrich the cultural, social, and economic status of the East Coast while ensuring any adverse effects are appropriately avoided or mitigated. As stated above any adverse environmental effects arising from the Proposal are considered to be less than minor.

Section 6 of the RMA sets out the Matters of National Importance. Matters relevant to this Application include:

(a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetland, lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development:*
The track has been located and designed to ensure that it preserves the natural character of the coastal environment and rivers and their margins. The location of the track avoids wetlands.

[3] *R J Davidson Family Trust v Marlborough District Council* [2018] NZCA 316, paras 74 and 75

(b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development:*

The track has been located and designed to protect outstanding natural features and landscapes.

(c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

The track has been located to avoid significant indigenous vegetation and significant habitats of indigenous fauna. Where significant indigenous vegetation could not be avoided, effects have been minimised as far as practicable and mitigation measures are proposed.

(d) *The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers:*

The Proposal is to develop a landscape sensitive pedestrian track which will connect the communities of Ngāti Porou and Te Whanau a Apanui and provide for greater immersive experience of the coastal and river environments, for whanau and visitors alike. The Proposal will significantly enhance public access to and along the CMA and rivers.

(e) *The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

Te Ara Tipuna is the working title of this multi-layered project, literally meaning the way of our forebears. This Proposal (Stage 1) seeks to build and maintain pedestrian tracks for local commuters, visitors and whole of journey hikers. As with all Kaupapa, it has layers of meaning. And it anticipates further layers of growth and development.

- Firstly, Te Ara Tipuna is an evolution of the ways of our ancestors. The way they practiced life and community; the way they interacted with the physical and metaphysical environment; the ways they used to move between whanau and hapu, undertake activities, connect with each other; the way they were in the world, in their time, and the cultural legacy they have left.
- Secondly, Te Ara Tipuna is intended to restore connectivity and momentum in the daily life of those who live and work in-rihe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday kaitiaki of the area and the people who transverse them, locals and manuhiri alike.
- Thirdly, Te Ara Tipuna is the overall description of the proposed network of ara/accessways, connecting existing tracks, old and new, reviving unused tracks, defunct paper roads, encroachments, along with new mapping to create a continuous journey from one end of Te Tairawhiti to the other, through Ngāti Porou and Te Whānau-ā-Apanui.
- Fourthly, Te Ara Tipuna provides opportunity for distinct tourism experience into the heart of Te Tairawhiti. It opens a part of Aotearoa New Zealand

where through terrain, beautiful beaches and bays are hoe to richly carved and decorated wharenui and wharekai, and people wo know how to hunt, dive, fish, cook, haka, sing, tell long stories, sly jokes, and deliver fast and furious one-liners.

- Fifthly, Te Ara Tipuna can offer a warm welcome and unique manaaki experience – iwi to kiwi – to fellow New Zealanders to walk into a marae, prepare kai in te kauta, eat and wash dishes, yarn by the fire, sleep in the wharenui, and head off into the day and to the next equally proud hapu along the ara.

Given the above, the Proposal will significantly enhance the relationship of Māori and their culture and traditions.

(f) The protection of historic heritage from inappropriate subdivision, use and development.

The Proposal will protect historic heritage but importantly it will also raise awareness of historic heritage through information boards and the like.

(g) The protection of recognised customary activities

For the reasons set out under sub section (e) above the Proposal provides for the protection, and enhancement, of recognised customary activities.

The Proposal is therefore consistent with Section 6 of the RMA.

Section 7 of the RMA defines 'Other Matters' to which particular regard shall be had in decision making under the RMA. Sub sections (a), (b), (c) and (f) are relevant. They relate to kaitiakitanga, the efficient use of natural and physical resources, the maintenance and enhancement of amenity values and the maintenance and enhancement of the quality of the environment.

For the reasons set out in the preceding assessment, the Proposal has been designed in a manner that strengthens kaitiakitanga, promotes opportunities for learning, enhances opportunities for public enjoyment and the amenity values of the East Coast and integrates into the environment in which it is located. Construction works will be managed to minimise the impact on amenity values and the environment. The Proposal is therefore consistent with Section 7 of the RMA.

Te Ara Tipuna Charitable Trust is the applicant. The Proposal is multi-layered and provides significant and wide-ranging benefits. The purpose of Te Ara Tipuna is to enrich and uplift the cultural, social, and economic status of the whanau, hapu iwi and communities of Te Tairawhiti, their resources and authority over their way of life, and wellbeing of their natural and built environment. In doing so, the proposal for Te Ara Tipuna is informed by the principles of the partnership, protection and participation. As such, it is considered that the Proposal is consistent with the principles of the Treaty of Waitangi.

It is considered that this Proposal satisfies the Purpose and the Principles of the RMA.

10. Conclusion

In terms of section 104(1)(a) of the RMA, the actual and potential adverse effects on the environment of the Proposal will be acceptable, and less than minor, as discussed in Section 5 of this report. Effects associated with landscape and visual effects, heritage and archaeological effects, cultural effects, social effects, recreational effects, traffic effects, ecological effects, coastal hazard effects, geotechnical effects, effects of earthworks and servicing effects, have been assessed to be less than minor and will be mitigated, where necessary, through a range of measures proposed, including implementation of the CMP, EMP and LMP.

The Proposal is multi-layer and provides significant and wide-ranging positive effects; it is designed to enrich the cultural, social, and economic status of the east coast while providing incentive for activity upon completion and employment during and after construction.

In terms of section 104(1)(b) of the RMA, the Proposal is consistent with the objectives and policies of the relevant statutory documents for the reasons set out in Section 8 of this report.

Te Ara Tipuna Charitable Trust, the Applicant, has requested public notification.

The Proposal is consistent with Part 2 of the RMA as Te Ara Tipuna has been designed and located in a manner that mitigates adverse effects on the environment and will enable people and communities to provide for their social and cultural well-being.

It is therefore considered appropriate for the Application to be granted after public notification, subject to the conditions proposed in Appendix 19.

Appendix 1:

Client's Statement

28 July 2023

Tena koutou i runga i nga ahuatanga o te wa, me nga manaakitanga a Matariki e haere ake nei, mo te tau hou.

As the world grapples with challenges of poverty, pollution, polarization, of war, racism, and climate change, and their impacts on Aotearoa, we look to secure our homes, lands, roads, waterways, our connection, communities and culture. Our identity.

Te Ara Tipuna is a piece of our shared puzzle of how we might do this here at home.

Te Ara Tipuna is, at one level, an idea and a prayer to restore a way of life inherited from our forebears, made fit for modern times, and sustainable into the future. At another, it is simply much needed infrastructure – a network of accessways providing a critical option for routine (and emergency) movement through the takiwa.

At yet another level, Te Ara Tipuna is a motivation for collecting, protecting, learning and teaching our stories, our songs, our systems and structures, our distinctive ways of seeing and being. Also, Te Ara Tipuna is the provision of access and opportunity for local level enterprise, for the sharing and showcasing of cultural wealth, for manuhiri and manaakitanga, and for material wellbeing. And, Te Ara Tipuna will require us, and rely upon us, to be practiced and perpetual kaitieki guardians of our whenua, whanau, whakapapa – our taiao, and our ao whanui.

This initiative has been conceived as a physical realisation of cultural connection. While it has been sponsored and led by Te Runanganui o Ngati Porou, in partnership and resourced by Te Puni Kokiri, it has been developed as a cultural embrace - of the iwi and hapu who are linked through whakapapa and share boundaries from Te Toka a Taiau (Ngati Porou) to Tarakeha (Te Whakatohea). It is in the spirit of an open invitation, respecting the mana of each to make their own decision, in their own time, as to whether to take up the opportunity.

Ultimately, however, it is the right and responsibility, the decision of landowners, shareholders, trustees, over whose property it is proposed Te Ara Tipuna passes.

Along with the high-level proposal for the mapped route it is further proposed that a device, akin to a passport, will be developed for users of Te Ara Tipuna. This ‘passport’, and an undertaking to abide by its settings, would apply to the entire journey, informed by the specific requirements negotiated with landowners, the hapu and iwi of that rohe. It is intended that the ‘passport’ provide for a principled commitment of safe and welcome passage, by both guest and host alike.

We are excited about the possibilities of Te Ara Tipuna. We trust that you are too!

Kia tau te ia o te Mauri kia tatau.

Sir Selwyn Tanetoa Parata KNZM

Appendix 2:

Link and Instructions for Plans and Planning Maps

App 02 - Map Instructions

This information is to be provided by the Council Mapping Team

Appendix 3:

Rules Assessment Table

Resource consents required-under the Opotiki District Plan and Bay of Plenty Regional Plans

Consents are required for the establishment of the trail as well as for the use of the trail.

The construction of the trail may involve land disturbance, vegetation clearance, establishment of culverts, bridges and clip on bridges.

Consents will be required for the location of buildings associated with the trail, including shelters, toilets and huts.

For this assessment, bridges, including clip on bridges are considered as structures.

It is considered that stormwater during construction as well as management of stormwater off the completed trail, will meet the permitted rules set out in the table below.

Users of the trail shall be able to use public toilets located along the route. If there are no public toilets available it is proposed to establish toilet blocks that shall be fully self contained resulting in no discharges.
Enviro Loo underground composting toilet system - greenloo.org.nz

Chapter 8- Rural Zone			
8.6 Rule Zone Standards			
8.6	**8.6.1 SITE COVERAGE** 8.6.1.2 Non-residential activity sites No limit, subject to compliance with the other Zone Standards. **8.6.4 YARDS** 8.6.4.1 Separation from adjoining properties 1. All buildings shall be set back at least 5m from side and rear boundaries, excluding crop protection structures and on-farm yards. **8.6.4.2 Building setback from roads** 1. All buildings shall be set back at least 9m from the road boundary. **8.6.4.3 Building setback from waterbodies**	**All standards shall be met.**	The provision of a walking trail and associated structures and facilities (shelters/huts) within the Rural Zone will be located and constructed in such a manner that will meet those performance standards for the Rural Zone. The CMP includes outlines the requirements to establish floor levels in accordance with 8.6.10.1.

	1. No building shall be located closer than 25m from any waterbody where the waterbody has an average width of at least 3m. 2. Where any waterbody has an average width of less than 3m a setback of at least 10m is required as part of a Controlled Activity assessment. **8.6.4.4 Building setback from plantation forestry** 1. Buildings shall be set back a minimum of 30m from the boundary of an existing plantation forest in order to mitigate potential fire risk to the forest and residential buildings. **8.6.10 FLOOR LEVELS** 8.6.10.1 Floor levels shall be sufficient to ensure that water does not enter buildings 1% AEP (Annual Exceedance Probability) event within the Coastal Environment or a 2% AEP event for areas outside the Coastal Environment. Council will determine the appropriate freeboard that needs to be added to the flood level to set the required minimum floor level.		
8.3 Rules	**Activity**	**Status**	**Comment**
8.3.2.1.2	Public Toilets	**Controlled**	Public toilets will be used in the first instance, however, if there are no public facilities available, public toilets will be established.
8.6.16.2	A sign with a maximum area of 1.1m^2 shall be a controlled activity in relation to any public purpose or on the same site as any of the following activities: 7. Tourist or special information, including places or points of special interest.	**Controlled**	It has been assessed that the interpretation signs (those not required by NZTA) will be considered a controlled activity in the Rural Zone
Chapter 9- Coastal Zone			
9.6 Zone Standards			

	9.6.1 SITE REQUIREMENTS **9.6.1.1 Site coverage** 2. Non-residential activity sites No limit, subject to compliance with other Zone Standards. **9.6.2 YARDS** **9.6.2.1 Separation from adjoining properties** All buildings shall be set back at least 5m from side and rear boundaries. **9.6.2.2 Building setback from roads** All buildings shall be set back at least 9m from the road boundary. **9.6.2.3 Building setback from coast** 1. No building shall be located closer than 50m from MHWS. **9.6.2.4 Building setback from waterbodies** 1. No building shall be located closer than 25m from any waterbody with an average width of at least 3m **9.6.7.1 FLOOR LEVELS** Floor levels shall be sufficient to ensure that water does not enter buildings 1% AEP (Annual Exceedance Probability) event within the Coastal Environment or a 2% AEP (Annual Exceedance Probability) event for areas outside the Coastal Environment. Council will determine the appropriate freeboard that needs to be added to the flood level to set the required minimum floor level. **9.6.10 COASTAL HAZARD ASSESSMENT** **9.6.10.1 Coastal hazard assessment** It should be noted that compliance with the standards in this Plan does not override Council's obligations under the Building Act 2004 when considering applications for building consents in areas with an identified coastal hazard risk. A coastal hazard assessment may be required in those circumstances.	**All standards shall be met.**	The track may require the establishment of shelters or huts.. It is the intention to avoid sensitive areas and should these buildings/structures be required, will be located in accordance with the zone standards, including the required setbacks. The CMP includes outlines the requirements to establish floor levels in accordance with 9.6.7.1. A coastal hazard assessment for the proposal has been included in Appendix 8.

9.3 Rules	Activity	Status	Comment
9.3.3.1.1	Community and outdoor recreation activities where any buildings and structures are less than 100m2 in area.	**Controlled**	
9.3.3.1.5	Public Toilets	**Controlled**	Public toilets will be used in the first instance, however, if there are no public facilities available, public toilets will be established.
9.3.3.1.6	Signs listed in 9.6.6.2 A sign with a maximum area of 1.1m^2 shall be a controlled activity in relation to any public purpose or on the same site as any of the following activities: 7. Tourist or special information, including places or points of special interest	**Controlled**	It has been assessed that the interpretation signs (those not required by NZTA) will be considered a controlled activity in the Coastal Zone
Chapter 10- Coastal Settlement			
10.6 Zone Standards			
	10.6.2 YARDS **10.6.2.1 Separation from adjoining properties** 1. All buildings shall be located at least 3m from a boundary with an adjoining property (not being a road boundary) **10.6.2.2 Building setback from roads** 1. All buildings shall be set back at least 4.5m from the road boundary **10.6.2.3 Building setback from the coast** 1. No building shall be located closer than 50m from MHWS, except for public toilets and emergency service	**All standards shall be met.**	The track may require the establishment of shelters or huts.. It is the intention to avoid sensitive areas and should these buildings/structures be required, will be located in accordance with the zone standards, including the required setbacks. The CMP includes outlines the requirements to establish floor levels in accordance with 10.6.6.1.

	facilities with a functional requirement to locate within 50m of MHWS **10.6.2.4 Building setback from waterbodies** 1. No building shall be located closer than 25m from a stream with an average width of at least 3m. 2. Where any waterbody has an average width of less than 3m a setback of at least 10m shall be required **10.6.6 FLOOR LEVELS** **10.6.6.1** Floor levels shall be sufficient to ensure that water does not enter buildings in a 1% AEP (Annual Exceedance Probability) event within the Coastal Environment or a 2% AEP (Annual Exceedance Probability) event for areas outside the Coastal Environment. Council will determine the appropriate freeboard that needs to be added to the flood level to set the required minimum floor level.		
10.3 Rules	**Activity**	**Status**	**Comment**
10.3.2.1.7	Any non-residential activity not specifically provided for in this Chapter which complies with the Zone standards in 10.6	**Controlled**	As the trail (and associated structures) are a non-residential activity, yet will comply with the zone standards, it will be considered a Controlled Activity in the Coastal Settlement Zone.
Chapter 13 Earthworks, Landscapes, Indigenous Vegetation and Habitats.			
13.6 Performance Standards			

13.6.1.1 Vegetation Disturbance in Outstanding Natural Features or Landscapes	Where vegetation clearance is undertaken in an Outstanding Natural Feature and Landscape, the following performance standard shall apply: 1. The area cleared and not otherwise surfaced shall be replanted with locally sourced indigenous species within the next growing season. 2. Pohutukawa trees shall not be removed or trimmed as part of vegetation disturbance under this rule.	**Standards met** .	The LMP requires the use of eco sourced indigenous species *3.3.3 Planting Eco sourcing* All new indigenous plants to be eco-sourced from the appropriate ecological district, as advised by the Project Ecologist
13.6.2.1 Earthworks	Earthworks undertaken in a site listed in 13.9.1 (Outstanding Natural Landscape) shall comply with all the following performance standards: 1**. The total area shall not exceed 400m^2 ;** 2. **The total volume shall not exceed 200m^3 ;** 3. The maximum cut and/or fill face shall not exceed 3m; 4. Where the earthworks are visible from a public road, public reserve, coastal marine area or the foreshore, bare surfaces shall be stabilised with mulch, hydroseeding or similar stabilisation mechanism; or where the earthworks are not visible from these areas, bare surfaces shall be revegetated in the next growing season.	**Standard not met** Land disturbance to establish the trail may exceed the total area and total volume within the Outstanding Natural Landscape.	Whilst the majority of the trail will be wayfinding, there may be areas where there is a functional need to establish built components. The area and volume of soil disturbance maybe triggered however there shall be no cuts or fills over 3m. Excerpt from LMP, page 1 footnote explains the 'functional need' that is reflected in the CMP as well as the LMP. *As discussed with the Project team, the CMP will include a responsive approach to the application of path types and other 'built' components, such as segregation markers, stripping and compaction and use of a gravel surface. The CMP will require strategic 'functional need' principles (such as ground condition, ensuring clear cues for movement, safety, and response to landowner feedback), to confirm use of these elements. This responsive approach is to ensure adverse landscape, visual amenity, and natural character effects, resulting from additional temporary works and 'built' structures, can be minimised. Where possible, the standard type of path, with a grass surface and simple sightline wayfinding markers, will apply. The CMP document has been developed through discussion with the wider Project team*

13.6.2.2 Earthworks	In the Coastal Environment Overlay earthworks shall not exceed 400m^2 in area and 200m^3 in volume in any 12 month period.	**Standards not met.**	In accordance with the LMP, the path will be aligned to avoid significant earthworks and vegetation removal, however, where there is a functional need, the construction of the trail may involve land disturbance in these areas may be over the permitted standards.
13.6.2.3 Earthworks	In the Coastal Zone earthworks visible from a public road, public reserve, coastal marine area or the foreshore shall not exceed 400m^2 in area and 200m^3 in volume in any 12 month period.	**Standards not met.**	In accordance with the LMP, the path will be aligned to avoid significant earthworks and vegetation removal, however, where there is a functional need, the construction of the trail may involve land disturbance in these areas may be over the permitted standards.
13.6.3 Buildings and Structures in Sites listed in 13.9.1 (Outstanding Natural Landscape) or 13.9.2 (Outstanding Natural Feature)	Buildings and structures in a site listed in 13.9.1 and 13.9.2 shall comply with the following performance standards: 1. All external surfaces of buildings shall have a maximum reflectivity value of 35% or shall be finished in natural materials that fall within this range; 2. The highest point of new buildings and structures, including rooflines, shall be a minimum of 5m below the natural ground level of any ridgeline; 3. Where the building or structure is to be located within an established vegetation canopy, the highest point of the building or structure shall not be higher than the existing canopy; 4. The maximum height of new buildings and structures shall be 7m.	**Standards met.**	The detailed design shall be in accordance with the LMP. *The path typologies use in Te Ara Tipuna should avoid additional structures and elements that are typical of a more urban and roading context. Path typologies are to be low-key, generally following existing tracks (where away from formed roads) with simple wayfinding, sightline markers and grass surface. The edges of the path should not be delineated, or the ground compacted, or gravel applied, as a standard treatment. These measures may be required in response to construction or operation constraints including requirements of landowners, to ensure clear cues for safety and, or as resilience measures.* If it considered necessary to introduce a structure in the ONLF, the design will meet the standards.

13.3 Rules- Indigenous Vegetation	Activity	Status	Comment
13.3.2.3 Pohutukawa	Clearance or disturbance of any Pohutukawa tree	**Discretionary**	Whilst the trail will be designed to avoid Pohutukawa, due to the wording of the rule which includes any disturbance of Pohutukawa, it is likely the trail construction with trigger this rule.
13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Indigenous vegetation disturbance within an IBDA A that is within the Coastal Environment Overlay.	**Discretionary**	The EMP requires a pre-construction ecological survey to be conducted, which involves assessing the specific ecological overlays (including PMAs and IBDA's) in relation to the proposed trail location. If the route does involve works close to or within identified areas of ecological significance, a site visit is required to assess potentially affected features. The construction plans will be reviewed alongside aerial imagery to identify whether vegetation clearance is required. If vegetation is proposed to be cleared, a site visit is required, this also applies to works around streams, wetlands and dune, beach, foreshore or coastal wetland areas. The methods of assessments are included in the EMP, alongside various separate management plans that will specifically address those identified values, including, vegetation, Bat, Bird, Freshwater Ecology and Coastal Ecology Management plan.
13.3.2.5 Indigenous Vegetation Disturbance in IBDA	Indigenous vegetation disturbance within an IBDA B that is within the Coastal Environment Overlay	**Restricted Discretionary**	Matters of discretion listed in 13.5.3 (page 237)
13.3.2.12 Outstanding Natural Landscapes	Indigenous vegetation disturbance for the construction of new walking and cycling tracks up to 1.5m wide	**Controlled**	

(13.9.1) Outstanding Natural Features (13.9.2) Coastal Environment Overlay			
13.3.2.13 Outstanding Natural Landscapes (13.9.1) Outstanding Natural Features Coastal Environment Overlay, Coastal, Coastal Settlement, Rural	Disturbance of indigenous estuarine vegetation or coastal dune land vegetation	**Discretionary**	**Will we disturb coastal dune land vegetation?** **Could remove.**
13.3.3 Rules Earthworks	**Activity**	**Status**	**Comment**
13.3.3.5	Earthworks that do not comply with the standard in 13.6.2	**Discretionary**	The establishment of the trail will result in land disturbance within different zones and overlays in the ODC. It is expected that the level of land disturbance required will be minor, however, due to the scale of the trail, it will not meet the performance standards in terms of volumes nor area, therefore will be considered discretionary.
13.3.3.5 Coastal Environment Overlay	Earthworks that do not comply with the standard 13.6.2	**Restricted Discretionary**	

13.3.3.5 Coastal	Earthworks that do not comply with the standard 13.6.2	**Restricted Discretionary**	
Chapter 18- Natural Hazards			
Rules 18.3	**Activity**	**Status**	**Comment**
18.3.3.2	Activities located within Areas Sensitive To Coastal Hazards (ASCH) as identified on the Planning Maps [or identified coastal hazard areas] where a report from a suitably qualified person detailing: (a) The impacts of the perceived hazard on the proposed activity; and (b) The impacts of the proposed activity on the perceived hazard; and (c) Where the outcome of the report indicates there will be no significant adverse effects from the activity, or from the hazard.	**Discretionary.** Provided that: (a) With the exception of buildings located within the Ōhiwa Spit Coastal Hazard Overlay when resource consent application is lodged with Council, and is accompanied with a report from a suitably qualified person detailing: i. The impacts of the perceived hazard on the proposed activity; and ii. The impacts of the proposed activity on the perceived hazard; and (b) Where the outcome of the report indicates that the activity will not result in an increase of adverse effects from coastal hazards then the	The application included a coastal hazard report which concluded that the adverse effects of the trail would be less than minor. This is due to the typology of the trail within sensitive dune areas, using way finders, as opposed to a formed track and aligning the path to avoid the sensitive frontal dunes where possible. The trail alignment has been located as much as practicable to avoid areas likely to be impacts by coastal erosion hazard over the next 50 years, including realignment to avoid areas likely to be impacted by coastal cliff instability. Where the trail is within an area subject to coastal hazards, a simple path design will be applied (as opposed to path types that require large investments such as boardwalks) to allow for adaptability. (Assessment of Coastal Hazards- 4D Environmental)

		activity shall be a **controlled** activity.	
Chapter 19 Coastal Environment Overlay			
19.5 Performance standards			
	19.5.1 HEIGHT **19.5.1.1** The maximum height for all buildings and structures shall be 7m. **19.5.2 BUILDING SETBACK FROM MEAN HIGH WATER SPRINGS** **19.5.2.1** All buildings except for public toilets established in accordance with a Reserve Management Plan or emergency service facilities shall be located at least 50m from MHWS **19.5.3 REFLECTIVITY** **19.5.3.1** The exterior surfaces (including the roof) of any building shall have reflectivity values of between 0% and 37%.. **19.5.5 INDIGENOUS VEGETATION DISTURBANCE** **19.5.5.1** Indigenous vegetation disturbance is regulated through Chapter 13: the rules and assessment criteria in Chapter 13 apply.	**Standards met**	
Bay of Plenty- Natural Resources Plan			
Chapter 5- Land Management			
Permitted Standards for Land Disturbance			

	(a) There shall be no point source discharge of sediment contaminated stormwater to surface water from the activity. (b) The diffuse discharge of sediment contaminated stormwater to surface water from the activity shall not cause the following effects, except where a 20% AEP flood event is exceeded: (i) The production of any conspicuous oil, grease films, scums or foams, or floatable or suspended solids. (ii) Any conspicuous change in colour or visual clarity. (iii) Any emission of objectionable odour. (iv) The rendering of fresh water unsuitable for consumption by farm animals. (v) Any more than minor adverse effects on aquatic life. (c) The activity shall not cause or induce erosion to land or to the bed or banks of any surface water body, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes: (i) Instability of land or the banks of the surface water body. (ii) Scour to the bed of the surface water body. (d) Fill from the earthwork activity shall not be deposited in overland or secondary flow paths that convey stormwater during rainfall events.	**Standards met**	Refer to CMP which outlines management of stormwater. During detailed design phase, the project ecologist will also review the proposed erosion and sediment control measures.

	(e) The activity shall not obstruct or divert the flow of water in such a manner that it results in damming, flooding or erosion. (f) The activity shall not disturb vegetation in a wetland; or change the water flow or quantity, or water quality in a wetland. (g) Where an activity is a cleanfill site, the activity shall comply with the Ministry for the Environment's Cleanfill Guidelines (2001)14. (h) The activity shall not disturb an identified contaminated site. (i) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body. (j) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be discharged to water, or discharged to land in circumstances where the contaminant may enter water, from the activity. (k) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body. (l) The activity shall be staged, managed and completed, and the activity site closed-off, in a manner that ensures compliance with conditions (a) to (k) inclusive.		

	(m) Any stormwater from outside the exposed area shall be kept separate from the earthworks area. (n) Where the earthworks are for stream crossing purposes, the activity shall also comply with the following conditions: (i) The crossing shall be made at, or near to, right angles to the flow of the water in the river or stream, ensuring minimal roading in the Riparian Management Zone. (ii) The area shall be stabilised as soon as practicable, but no later than 3 months from the end of the activity. (iii) All practicable steps shall be taken to keep stormwater away from the stream crossing approach.		
Rules Earthworks	**Activity**	**Status**	**Comments**
LM R3 (Rule 1B)	The disturbance of land and soil as a result of earthworks or a quarry, where the activity does not exceed limits in Table LM 3 within any 12 month period. • Riparian Management Zone- other lake not specified in (a), wetland or the bed of any river or stream, excluding streams and rivers with Water Supply water quality classification. • Earthworks excluding stream crossings- 500m^2 and 500m^3 • Earthworks for stream crossings- all earthworks not permitted by LM R1.	**Restricted Discretionary.**	Land disturbance will be kept to a minimum within these sensitive areas, (as outlined in the CMP, EMP,LMP and Coastal Hazard assessment), however, there may be areas where required land disturbance will trigger this rule, for instance, establishing stream crossings and works within the riparian area.
LM R4 (Rule 1C)	The disturbance of land and soil as a result of earthworks where the activity is not permitted,	**Discretionary**	Land disturbance will be kept to a minimum within these sensitive areas, (as outlined in the CMP, EMP,LMP and Coastal Hazard assessment), however, there may be areas within the

	controlled or restricted discretionary activity under a rule in this regional plan Applies to • Coastal land between 0-50 metres of the Coastal Marine Area on Sand Dune Country • Coastal land between 0-20 metres of the Coastal Marine Area on the Coastal Margin • Any earthworks in the Coastal Margin between 0 to 20 horizontal metres as measured from the Coastal Marine Area on the edge of an estuary, harbour, or the open rocky coast. • Land disturbance for river crossings in Riparian Areas of waterbodies in Schedule 1 that exposes more than 600m^2 of soil in each crossing. Land disturbance (excluding stream crossings) exposing over 400m^2 in area and volume greater than 200m^3		coastal area where required land disturbance will trigger this rule.
Chapter 8- Beds of Water Bodies			
Rules- Activities in the beds of rivers, streams and lakes	**Activity**	**Status**	**Comments**
BW R4 (Rule 51c) Restricted Discretionary – Extension and Upgrade of Existing Lawfully Authorised	The extension and upgrade of any existing lawfully authorised structure in, on, under or over the bed of a river, stream (including modified watercourse) or lake (excluding Rotorua Lakes) where: 1 The structure existed on the date on which this rule becomes operative; and	**Restricted Discretionary** The Regional Council restricts its discretion to the following matters: (a) Measures to avoid, remedy or mitigate the	Clip on bridges to existing road bridges will be one method to provide safe pedestrian access within the road corridor. Other methods include a light system or an alternative separate foot bridge.

Structures- Clip on bridges	2 The structure is not a dam; and 3 The activity is not associated with the piping of a stream; and 4 The structure is not otherwise permitted by a rule in this regional plan;	adverse effects of the structure on: (i) Soil conservation or land stability (including the stability of the bed of the surface water body). (ii) The passage of fish. (iii) Aquatic ecosystems, including indigenous biodiversity. (iv) Property owned or occupied by another person, including effects on flooding or ponding. (v) Natural water flow and flood flows. (vi) Natural character, including the cumulative effects of structures in the area. (vii) Landscape character and amenity values. (viii) Maintenance of legal public access. (b) Maintenance of the structure. (c) Monitoring and information requirements.	

		The use of clip on bridges to existing structures is one method that may be used to ensure the safety of trail users.	
BW R21 (Rule 60A) Single span bridges	The use, erection, reconstruction, placement, alteration or extension of a single span bridge or single span pipe bridge, over the bed of a river, stream, or lake, where the structure: 1 Is not located where the adjacent land slope is greater than 35°, and 2 Is not located within any Urban Area or Settlement, or within one (1) kilometre upstream of any Urban Area or Settlement, and 3 Is not located in a wetland, and 4 The bridge crosses a waterway with a contributing catchment of greater than 100 hectares and not greater than 5,000 hectares, and 5 Is not located in a Land Drainage canal	**Controlled** The Regional Council reserves its control over the following matters: a) Measures to account for prevailing ground slope. (b) The timing of any disturbance of the bed of a surface water body in relation to adverse effects on aquatic ecosystems, including indigenous biodiversity. (c) Erosion protection works. (d) Maintenance of the bridge. (e) Soffit height above the watercourse. (f) Velocity of water under the bridge. (g) Construction standards. (h) Location of the bridge	Foot bridges may be used to cross smaller water bodies.

Permitted activities under the ODC and BOP Regional Plans

Chapter 8- Rural Zone			
8.3.1.1.16	Any activity that is not listed in this Chapter and which complies with the Zone Standards.	**Permitted** The track is considered permitted in the Rural Zone.	
Chapter 9- Coastal Zone			
9.3.2.1.13	Any activity that is not listed in this Chapter and which complies with the Zone Standards.	**Permitted**	
Rules 13.3.2 Indigenous Vegetation Clearance			
13.3.2.1 Indigenous Vegetation Clearance	Maintenance and pruning of Pohutukawa trees where such maintenance or pruning is necessary for the health of the tree or the safety of people and a report from a suitably qualified and experienced person is lodged with the Council before work commences, confirming that the work is necessary and outlining the methodology	**Permitted** EMP includes comprehensive management plans to address these matters	
13.3.2.7 Outstanding Natural Landscapes (13.9.1) Coastal and Coastal Settlement Overlay	Indigenous vegetation disturbance (excluding disturbance within wetlands, indigenous estuarine vegetation or sand dune land vegetation) which affects an area less than 100m^2 in any 12 month period, except as listed below	**Permitted**	

13.3.2.14 Rural	Indigenous vegetation disturbance in the Rural Zone and not within a site listed in 13.9.1 or 13.9.2, the Coastal Environment, Coastal, Coastal Settlement or Ohiwa Harbour Zones: a. in the Ōpōtiki or Taneātua Ecological Districts, where the sum of all clearance in any five year period shall not exceed 400m^2 ; or b. in the Waioeka, Motu or Pukeamaru Ecological Districts, where the sum of all clearance in any five year period shall not exceed 2000m^2	**Permitted**	
Rules- 13.3.3 Earthworks			
13.3.3.1 Outstanding Natural Landscapes (13.9.1) Coastal Environment Overlay Coastal, Coastal Settlement, Rural	Earthworks complying with 13.6.2 (Performance Standards)	**Permitted**	
13.3.3.4 Coastal Environment Overlay Coastal, Coastal Settlement, Rural	Earthworks for the construction of new walking and cycling tracks up to 1.5m wide subject to compliance with 13.6.2	**Permitted**	

19.3 Rules- Coastal Environment Overlay			
19.3.1.1	Subject to compliance with the relevant Standards, unless otherwise stated, the following activities may occur without resource consent from Council. 2. Activities otherwise permitted in the relevant Zone that comply with the standards in 19.5.	**Permitted**	
Bay of Plenty- Natural Resources Plan			
Land Management			
LM R1 (Rule 1)c Riparian Management Zone Earthworks excluding stream crossings - Exposed area no greater than 400 m^2 and volume no greater than 200 m^3 Earthworks for stream crossing purposes – exposed area no	**0 to 7º** Between 0-5 horizontal metres from the edge of the water body **>7 to 15º** Between 0-10 horizontal metres from the edge of the water body **>15 to 25º** Between 0-20 horizontal metres from the edge of the water body **>25 to 35º** Between 0-25 horizontal metres from the edge of the water body	**Permitted**	

greater than 1,000 m^2 per crossing			
LM R1 (Rule 1)g Coastal Margin	Land Slope no greater than 35^0 Land between 20-40 horizontal metres as measured from the Coastal Marine Area on the edge of an estuary, harbour, or the open rocky coast. Exposed area no greater than 400 m^2 and volume no greater than 200 m^3.	**Permitted**	
LM R1 (Rule 1) h	Land not in areas covered by (a) to (e) (Riparian zones), and not in the Erosion Hazard Zone. Slopes 0 to 15º Exposed area no greater than 1 hectare and volume no greater than 5,000 m^3 >15 to 25º Exposed area no greater than 5,000 m^2 and volume no greater than 5,000 m^3. >25 to 35º Exposed area no greater than 500 m^2 and volume no greater than 500 m^3.	**Permitted**	
LM R7 (Rule 2)	The disturbance of land and soil resulting from vegetation clearance, where: 1 The activity is not:	**Permitted**	

	(a) On land with a dominant slope greater than 35%; or (b)In the Erosion Hazard Zone; or (c) In the Coastal Margin; and either (2) or (3): 2. The activity complies with 4, 5, 6, 7 or 8 below.		
Discharge to Water and Land			
DW R20 (Rule 30) Applies to stormwater off the track and structures. The stormwater off the land disturbance areas during construction will be covered under the discretionary land disturbance rule.	Discharge of Stormwater to Surface Water The discharge of stormwater to surface water, or to land where the discharge enters surface water, is a permitted activity, subject to the following conditions: (a) The suspended solids concentration of the discharge shall not be greater than 150g/m^3, except where a 10 minute duration 10% AEP storm event (10 year return period storm) is exceeded. (b) The discharge shall not be to a surface water body in an area otherwise covered by a Comprehensive Catchment Discharge Consent. (c) The discharge shall not cause the production of conspicuous oil or grease films, scums or foams, or floatable materials.	**Permitted**	Applies to management of stormwater during land disturbance (during track construction) as well as management of stormwater off the completed trail and its associated structures.

	(d) The rate of discharge shall not exceed 125 litres per second for a 10 minute duration 10% AEP storm event (10 year return period storm). (e) The discharge shall not contain any stormwater from a timber preservation site, timber treatment site, or a site where chemically treated timber is stored. (f) The discharge shall not cause or induce erosion to the bed or banks of any surface water body, or to land, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes: (i) Instability of land or the banks of the surface water body. (ii) Scour to the bed of the surface water body. (iii) Damage to the margins or banks of the surface water body. (g) The discharge shall not cause nor contribute to flooding or ponding on any land or property owned or occupied by another person. (h) The discharge shall not contain hazardous substances, or substances that are toxic to aquatic ecosystems (as measured relative to the ANZECC		

	Guidelines for Fresh and Marine Water Quality, 2000).24 (i) The discharge shall not contain any wastes (including, but not limited to, wastewater or condensates) from a trade or industrial process. (j) The discharge shall not cause a conspicuous change in the colour of the receiving waters. (k) Where the discharge is to a part of a receiving water body that is classified as Water Supply, the discharge shall not contain any substance that renders the water unsuitable for treatment (equivalent to coagulation, filtration, disinfection or micro-infiltration) for human consumption.		
DW R22 (Rule 31)	The discharge of contaminated stormwater to land soakage is a permitted activity, subject to the following conditions: (a) The rate of discharge shall not exceed 125 litres per second for a 10 minute duration 10% AEP storm event (10 year return period storm). (b) The discharge shall not cause the production of conspicuous oil or grease films, scums or foams, or floatable materials. (c) The discharge shall not contain any wastes (including, but not limited	**Permitted**	Applies to management of stormwater during land disturbance (during track construction) as well as management of stormwater off the completed trail and its associated structures.

	to, wastewater or condensates) from a trade or industrial process. (d) The discharge shall not contain any stormwater from a timber preservation site, timber treatment site, or a site where chemically treated timber is stored. (e) The discharge shall not cause or induce erosion to the bed or banks of any surface water body, or to land, where the erosion is persistent or requires active erosion control measures to bring it under control. Erosion includes: (i) Instability of land or the banks of the surface water body. (ii) Scour to the bed of the surface water body. (iii) Damage to the margins or banks of the surface water body. (f) The discharge shall not cause nor contribute to flooding or ponding on any land or property owned or occupied by another person.		
Chapter 8- Beds of Water Bodies			
BW R15 (Rule 59) Culverts in low risk areas.	The use, erection, reconstruction, placement, alteration or extension of a culvert in, on or under the bed of a river, stream, or lake, and associated bed disturbance, where the culvert:	**Permitted**	

	1 Is not located where the adjacent land slope is greater than 35º, and 2 Is not located within any Urban Area or Settlement, or within one (1) kilometre upstream of any Urban Area or Settlement, and 3 Is not located in a wetland, 4 Is not located in a Land Drainage Canal; Is a permitted activity subject to the following conditions: (a) There shall be only one culvert per crossing of the appropriate length. (b) The culvert shall be constructed: (i) To allow the flood flow from a 5% AEP (1 in 20 year return) event with no freeboard, and (ii) To allow the flood flow of a 2 year return period flood event with no heading up. (c) The minimum culvert diameter shall be 300 mm and the maximum culvert diameter shall be 1200 mm. (d) The maximum fill height over the culvert shall be 1.5 metres. (e) Culvert inlets (entry point) and outlets (exit point) shall be protected against erosion.		

	(f) The culvert invert shall be installed a minimum of 0.1 metres below the level of the bed of a river, stream, or lake. (g) No works shall be carried out in the wet part of the bed in the tidal reaches of rivers and streams, between 1 March and 31 May. (h) The disturbance of the bed of the water body and release of sediment resulting from the construction of the structure shall not occur for a period greater than: (i) A total period of 48 consecutive hours per structure in any water body listed in Schedule 1. (ii) A total period of five (5) consecutive days per structure in any water body not otherwise covered by (i). (i) No works shall be undertaken in the bed of a water body listed in Schedule 1D between 1 May and 30 August. (j) No works shall be undertaken in the bed of a water body listed in Schedule 1A between 15 August and 15 October. (k) All practicable steps shall be taken to avoid, remedy or mitigate the release of sediment during construction of the structure, and no clearly discernible change in the visual clarity of the water shall occur beyond a distance of 100 metres downstream of the activity site.		

	(l) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be released to water from the activity. (m) Where the culvert is in a water body listed in Schedule 1, the owner of the structure shall notify the Regional Council of the location of the culvert at least five (5) working days prior to construction (n) The construction, installation and ongoing presence of the culvert shall not cause or induce erosion of the bed or banks of any surface water body. Erosion includes: (i) Instability of land or the banks of the surface water body. (ii) Scour to the bed of the surface water body. (o) The activity shall not prevent the passage of migrating fish. (p) The activity shall not compromise the structural integrity or use of any other authorised structure or activity in the bed or the stream, river or lake, including flood control works in River Scheme Works Areas (defined in Schedule 5). (q) The activity shall not cause a hazard to navigation in navigable rivers and lakes.		

	(r) The structure shall not alter the natural course of the river. (s) All machinery shall be kept out of the bed of the stream, river, or lake where practicable. (t) The disturbance of the bed shall be limited to the extent necessary to carry out the activity. (u) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body. (v) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body. (w) The structure shall be maintained in a sound condition for the purpose for which it was constructed, and be kept clear of accumulated debris. (x) The structure shall be constructed to ensure that the structure can not break free and cause a blockage or erosion. (y) Following the completion of construction, all excess construction materials and equipment shall be removed from the bed of the stream, river or lake.		

BW 20 (Rule 60) Single Span Bridges, or Single Span Pipe Bridges	The use, erection, reconstruction, placement, alteration or extension of a single span bridge or single span pipe bridge over the bed of a river, stream, or lake, where the structure: 1 Is not located where the adjacent land slope is greater than 35º, and 2 Is not located within any Urban Area or Settlement, or within one (1) kilometre upstream of any Urban Area or Settlement, and 3 Is not located in a wetland, and 4 Is a bridge that crosses a waterway with a contributing catchment of no greater than 100 hectares, and 5 Is not located in a Land Drainage Canal; and associated bed disturbance is a permitted activity subject to the following conditions: (a) The structure shall be designed by, or under the guidance of, a chartered professional engineer, except where the length of the bridge is less than four (4) metres as measured between the banks of the surface water body. (b) The bridge shall be constructed to allow the flood flow from a 10% AEP (1 in 10 year	**Permitted**	

	return) event with a minimum clearance of 0.3 metres. (c) No excavations or infilling of the banks of a river, stream, lake or wetland shall be carried out. (d) The bridge abutments or foundations shall be constructed parallel to the flow. (e) Where the structure conveys a contaminant, there shall be no discharge of contaminants from the structure. (f) No works shall be carried out in the wet part of the bed in the tidal reaches of rivers and streams, between 1 March and 31 May. (g) No works shall be undertaken in the bed of a water body listed in Schedule 1D between 1 May and 30 August. (h) No works shall be undertaken in the bed of a water body listed in Schedule 1A between 15 August and 15 October. (i) The construction, installation and ongoing presence of the culvert shall not cause or induce erosion of the bed or banks of any surface water body. Erosion includes: (i) Instability of land or the banks of the surface water body. (ii) Scour to the bed of the surface water body.		

	(j) The activity shall not prevent the passage of migrating fish. (k) The activity shall not compromise the structural integrity or use of any other authorised structure or activity in the bed of the stream, river, or lake, including flood control works in River Scheme Works Area (defined in Schedule 5). (l) The activity shall not cause a hazard to navigation in navigable rivers and lakes. (m) The structure shall not alter the natural course of the river. (n) All machinery shall be kept out of the bed of the stream, river or lake where practicable (o) The disturbance of the bed shall be limited to the extent necessary to carry out the activity. (p) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any water body. (q) All practicable measures shall be taken to avoid vegetation, soil, slash or any other debris being deposited into a water body or placed in a position where it could readily enter or be carried into a water body. (r) The structure shall be maintained in a sound condition for the purpose for which it		

	was constructed, and be kept clear of accumulated debris. (s) The structure shall be constructed to ensure that the structure can not break free and cause a blockage or erosion. (t) Approaches and abutments shall be stabilised, and appropriate water controls installed, to protect against erosion. (u) Structures over the beds of lakes shall be designed and constructed to account for natural lake water level fluctuations. (v) Following the completion of construction, all excess construction materials and equipment shall be removed from the bed of the stream, river or lake. (w) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents or anti-fouling paints), excluding sediment, shall be released to water from the activity.		
On-site Effluent Treatment- Bay of Plenty On-site Effluent Treatment Regional Plan 2006 Use of composting toilets			
	It is proposed to use contained composting toilets that will not discharge into the environment.		
Regional Coastal Environment Plan			

Rule SO 8	**Permitted – Maintenance or alteration of structures in the Coastal Marine Area** The maintenance or alteration of any authorised structure in the coastal marine area where the structure is: 1. Not in an Indigenous Biological Diversity Area A (as identified in Schedule 2, Table 1); and 2. Not located in the Port Zone or Harbour Development Zone, Is a permitted activity, subject to the following conditions:	**Permitted**	Some of bridges which shall be modified by including clip on bridges are within the CMA. It is considered that the clip on bridges would be considered a permitted activity as it will meet the following conditions There shall be no increase in the permanent external length, width, or height of any structure, except for increases for the purposes alteration or addition of bridge footpaths, bridge side rails, where these activities will not cause an increase in the flood levels for a 1% annual exceedance probability (AEP) flood event. This also includes the disturbance of the foreshore and seabed associated with the activity, as well as the deposition of material in the CMA associated with the activity and the discharge of sediment to the CMA resulting from maintenance or alteration of structures.

Consents are required for the establishment of the trail as well as for the use of the trail.

The construction of the trail may involve land disturbance, vegetation clearance, establishment of culverts, bridges and clip on bridges.

Consents will be required for the location of buildings associated with the trail, including shelters, toilets and huts.

The proposed location of these buildings/shelters are shown on the supplied GIS layer map.

For this assessment, bridges, including clip on bridges are considered as structures.

It is considered that stormwater during construction as well as management of stormwater off the completed trail, will meet the permitted rules set out in the table below.

Users of the trail shall be able to use public toilets located along the route. If there are no public toilets available it is proposed to establish toilet blocks that shall be fully self contained resulting in no discharges.
Enviro Loo underground composting toilet system - greenloo.org.nz

DC1 Significant Values Coastal Management Area			
Rule	**Activity**	**Activity Status**	**Comments**
1.6.1(18)	Except as provided for in Rules DC1.6.1(3), DC1.6.1(15) and DC1.6.1(17), any activity that requires construction, erection or alteration of a network utility structure within the Coastal Marine Area of a Significant Values Coastal Management Area, (but excepting any reclamations), is a discretionary activity.	Discretionary	A new footbridge and two clip ons to existing bridges are required for crossing 3 water bodies that are considered within the CMA of a Significant Values Coastal Management Area. The footbridge is 20-21km located at Whangara crossing the Waimoko River. (SVMA Unit 13) 205-206 km East Coast Road crossing the Awatere River. (SVMA Unit 2)

			211-212km Te Araroa Road crossing the Karakatuwhero River. **(SVMA Unit 3)**
DC2 General Coastal Management Area			
Rule	**Activity**	**Activity Status**	**Comments**
2.6.1(21)	Unless specified elsewhere to the contrary, and more specifically, any activity that requires construction or erection of a structure in the Coastal Marine Area of the General Management Area, but excepting minor alterations and any reclamations, is a discretionary activity provided the following standards and terms are met: a) Any adverse effects of the structure on the Coastal Marine Area cannot be avoided by locating the structure outside of the Coastal Marine Area.	**Discretionary**	A new footbridge and clip on bridges are required for crossing 3 water bodies in a location that is considered within the CMA of General Management Area **47-48km location at Tolaga Bay Estuary crossing Kaitawa stream** .
DD4 Rural Zones			
DD4.6.1.1 General Standards			
A. a) All activities shall comply with rules specified in C2 – Built Environment, Infrastructure and Energy and C11.2: Noise and Vibration, and C11.3 Lighting and Glare, and C11.4 Radiofrequency.	Establishment and use of the trail Establishment of associated huts, shelters and toilet blocks	**Standard met**	The trail will require the establishment of huts, shelters and additional toilet blocks (where they are not already existing). It is the intention to avoid sensitive areas and should they be required, will be located in accordance with the zone standards. The trail and associated facilities comply with those relevant matters in A.
B. Recession Plane	Establishment of huts, shelters and toilet blocks	**Standard met.**	Any buildings associated with the trail, will be designed and located to meet the recession plane requirements.

a) Buildings, parts of buildings, and structures (excluding chimneys, antennas and their support structures) shall be contained within recession planes commencing 2.75m above each site boundary. The angles of the recession plane at each site boundary shall be determined using the recession plane indicator.			
C. Yard Distances a) All yards: 4.5m	Establishment of huts, shelters and toilet blocks	**Standard met**	Any buildings associated with the trail, will be designed and located to meet the yard requirements in the Rural Zone of 4.5m.
4.6.1A(19)	Activities not listed as Permitted activities but which comply with the General Standards	**Discretionary Activity**.	The Rural zone does not specify the trail as a permitted activity. The trail and location of the associated facilities will meet those relevant general standards for the Rural Zone.
DD5.6 Reserve Zones			
DD5.6.1.1 General Standards			
A.	Establishment and use of the trail	**Standard met**	The trail construction and use will comply with those relevant matters in A.

a) All activities must comply with rules specified in C2 – Built Environment, Infrastructure and Energy and C11.2: Noise and Vibration. C11.3: Lighting and Glare, C11.4: Radiofrequency.			
B. Recession Plane a) On any reserve site having a common boundary with any residential or rural land, buildings, structures or any part thereof excluding chimneys, antennas and their supporting structures and network utility structures shall not project beyond a building envelope constructed by recession planes from points 2.75m above site boundaries. The angle of such	There shall be no establishment of buildings associated with the trail within a reserve zone.	**Standard not applicable.**	

recession planes shall be determined for each site by use of the recession plane indicator			
C. Yard Distances a) Buildings and structures shall be set back a minimum of 4.5m from road boundaries; 3m from residential and rural residential zone boundaries.	There shall be no establishment of buildings associated with the trail within a reserve zone. .	**Standard not applicable**	
C3.14.3- Coastal Environment Overlay			
3.14.3(9)	Vegetation clearance, other than that specifically permitted or authorised by another rule, provided that: a) The activity is not for the purpose of erecting a dwelling unit on a site to be erected on a building platform for which a subdivision resource consent has been granted between 1 October 1991 and 8 November 1997. **b) The area is not within a residential zone.** **c) Vegetation clearance exceeds 1ha in any contiguous area and/or exceeds 1ha over any 12 month period.**	**Restricted Discretionary** **Matters of Discretion** a) The timing and duration of the activity. b) The area and location of the activity. c) Any vegetation that is to be retained. d) Potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape, including revegetation type and density as they impact on these values. e) Protecting ecosystems unique to the Coastal Environment such as estuaries, coastal wetlands and dunes. f) Effects on the water quality of waterbodies in the Coastal Environment.	Construction of the trail will require vegetation clearance within the Coastal Environment Overlay. Whilst the scale of the clearance would be limited to establish the trail, there is the potential to exceed 1 hectare in any contiguous area and/or exceeds 1 ha over any 12 month period.

		g) Heritage values in the heritage alert layer.	
3.14.3(10)	Land disturbance, provided that: a) The activity is not for the purpose of erecting a dwelling unit on a site to be erected on a building platform for which a subdivision b) The site is not zoned residential or port management zone. **c) The activity exposes more than 50m^2 of earth, measured in a vertical plane view, in any `three month period, or disturbs more than 50m^3 of earth in any three month period.**	**Restricted Discretionary** Matters of Discretion a) The timing and duration of the activity. b) Area, location and length of the activity with particular regard to conformity with existing landforms. c) Placement and management of cuts and fills likely to be visually dominant in the landscape. d) Potential effect, especially of any cut and fill areas, on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape – including revegetation type, timing and density as they impact on these values. e) Effects on water quality of waterbodies in the Coastal Environment. f) Heritage values in the heritage alert layer. g) The protection of ecosystems unique to the Coastal Environment including those acting as natural defences to erosion and inundation such as estuaries, coastal wetlands and dunes.	Construction of the trail will require land disturbance which may trigger the limits set in 3.14.3(10) c within the Coastal Environment Overlay.
3.14.3(13)	Tree planting (subject to Land Overlay 3A Rule C7.1.6.19), vegetation clearance, land disturbance, and structures within 200m of MHWS, provided that:	**Discretionary**	The majority of the trail route is within the Coastal Environment, with some sections coming in within 200m of the MHWS.

	a) The activity is not for the purpose of erecting a dwelling unit on a site to be erected on a building platform for which a subdivision resource consent has been granted between 1 October 1991 and 8 November 1997. b) The site is outside any residential or port management zone. **c) The activity is vegetation clearance greater than 100m^2 in any one contiguous area,** or is tree planting that covers more than 100m^2 in any one contiguous area (excluding landscaping associated with residential buildings). **d) The activity exposes more than 10m^2 of earth measured in a vertical plane view in any three month period, or disturbs more than 10m^3 of earth in any three month period**, or alters the natural landform of a dune.		The construction of the trail will require land disturbance (d) and vegetation clearance (c) within 200m of MHWS but will not result in any alteration of the natural landform of a dune. Buildings associated with the trail may be located within 200m of MHWS.
C6.2.12 Rules for Solid Discharge			
6.2.12(7)	Activities that do not comply with the permitted activity standards or any other solid or fertiliser discharges not provided for in another rule in this plan.	**Discretionary**	Gravel, may be used in areas to provide a safe and all-weather surface due to ground conditions. It will be clean material and shall not cause any diversion of overland flows of stormwater or floodwater, however, there maybe areas where the trail requires metalling that are closer or within sensitive areas such as those listed in (f) significant vegetation/habitat and (c) areas within 20m of G15 scheduled water bodies.
C6.3 Activities in the Beds of Rivers and Lakes			
General Standards 6.3.2.1			

6.3.2.1	A. a) Native fish passage shall not be impeded by physical barriers or other means; b) Activities shall not reduce the flood carrying capacity or the ability of the stream or river to carry floating debris; c) Activities shall not cause any increase in induced bank erosion or permanent destabilisation of the bed or river; d) All practicable steps shall be taken to avoid the release of sediment from the activity, and no clearly discernible change in visual clarity of the water shall occur after reasonable mixing downstream of the activity site more than 48 hours after construction work commences in the lake, river or stream; e) No works shall be carried out in the wet part of the bed in the tidal reaches of rivers and streams between 1 March and 30 June; f) No works shall be undertaken in the bed of a waterbody listed in Schedule G15(E) (trout) between 1 May and 30 September; g) No works shall be undertaken in the bed of a waterbody listed in Schedules G15(A) or G15(B) (Aquatic habitat) between 1 May and 30 August; h) No works shall be undertaken in the bed of a waterbody listed in Schedule G15(C) (Habitats of Threatened Indigenous Flora and Fauna) where NZ or Banded Dotterel or other river bed nesting and/or roosting birds are found between 31 August to 31 December;	Any works within beds of waterbodies will managed/designed to ensure that the general standards shall be met. **Standards met**	The construction management plan outlines the steps that will be taken to ensure that works within these areas will meet those standards listed in 6.3.2.1. Appendix 7- Construction Management Plan

	i) The activity shall not alter the natural course of the stream or river; j) No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents, or anti-fouling paints), excluding sediment, shall be released to water from the activity; k) No machinery refuelling or fuel storage shall occur at a location where fuel can enter any waterbody; l) The activity shall not compromise the structural integrity or use of any other authorised structure or activity in the bed of the stream, river or lake, including flood control works in Council Administered Drainage Areas (defined in Schedule H19).		
6.3.2(16) Culverts in larger catchments	Erection, placement and ensuring use of a ford or culvert in the bed of a lake, river or stream which is unable to comply with the Permitted Activity standards with respect to: a) Timing of the event of the activity; b) Temporary nature of ford placement; **c) Size of the catchment in which the culvert** or a temporary ford is placed. d) All practicable steps shall be taken to avoid the release of sediment from the activity, and no clearly discernible change in visual clarity of the water shall occur after reasonable mixing more than 48 hours after any construction work commences in the lake, river or stream. Provided that: The activity	**Restricted Discretionary** Matters of Discretion a) Size, placement, type and location of crossing; b) Timing and duration of activity; c) Effects on water flow, capacity of river and ability of the river to carry floating debris; d) Effects on bank erosion and destabilisation of the bed; e) Effect on fisheries and spawning tributaries; f) Effects on hazard management, heritage items and natural heritage values.	There maybe some waterbodies that are part of catchments that exceed 100 hectares which require the installation of a culvert.

	shall comply with all rules (except those listed above) specified for a Permitted Activity		
6.3.2(18)	Use, erection, reconstruction, placement, alteration, removal or demolition of any structure or part of any structure in the bed of a lake, river or stream which is not already provided for by a rule in the Plan.	**Discretionary**	Existing infrastructure will be used in the first instance, however, in the absence of such infrastructure or due to safety reasons, there maybe requirement for construction of new pedestrian bridges, that will require parts of the substructure(piers and abutments) to be located within the beds of waterbodies. Appendix 6 Waterbody crossings
C6.4.5 Rules for Riparian Management Areas			
C6.4.5.1 General Standards Riparian Management Areas			
C6.4.5.1	The following standards apply to permitted activities in Riparian Management Areas: A. a) No contaminants – including, but not limited to – oil, hydraulic fluids, petrol, diesel, other fuels, paint, solvents, or anti-fouling paints, excluding sediment, shall be released into the water body; b) All machinery shall be kept out of the bed of the water body and refuelling or fuel storage shall occur at a location where fuel cannot enter any water body; c) Where possible, activities should be undertaken between 1 October and 31 March; d) The activity shall not cause or induce ongoing erosion of the bed or banks of any surface water body; e) No vegetation, slash, soil or other debris shall be:	Any works within the riparian management area will managed/designed to ensure that the general standards listed in C6.4.5.1 shall be met. **Standard met**	The Construction Management Plan includes methods/steps to be undertaken during construction and works within Riparian Management Areas. Appendix 7 CMP

	i. Directly deposited in, on or under the bed of a lake or river, or deposited into a position where it can readily enter or be carried into a permanently flowing river or lake. ii. Left in a position described by i) above, where the vegetation exceeds: • 100mm diameter and 3m in length; or • 100mm diameter and any lesser length, where the vegetation may cause diversion, damming, bed erosion or habitat destruction		
6.4.5(16)	Vegetation clearance not provided for in another Rule within the Riparian Management Area of an Aquatic Ecosystem Waterbody identified in Schedule G15.	**Restricted Discretionary** Matters of discretion a) location of the activity; b) timing and duration of activity; c) effects on bank erosion, mobilisation and destabilisation of the bed; d) effects on fisheries and ecosystem health including 'threatened' or 'at-risk' species; e) effects on water quality; f) effects on natural character and landscape values; and g) effects on recreational values.	The trail will run adjacent to some waterbodies that are included in schedule 15 and will require the establishment of crossings (culverts and/or bridges). In these cases, vegetation clearance will be required which shall trigger this rule. As outlined in the Ecological Management Plan (Appendix 13) , riparian areas have been identified as sensitive areas that will require a site visit by an ecologist during detailed design phase. The site assessment will determine whether the proposed works will have a moderate or higher level of effect prior to mitigation on any stream, river or wetland or associated fauna such as birds, fish or amphibians, if the proposed works or route cannot be modified to avoid this affect, then the area will be managed as a "Confirmed Biodiversity Area" and an EMP will be required. Should the assessment determine that the affects will be less than minor, the standard mitigation methods will apply, which are outlined in the CMP. Appendix 8 for the CMP

6.4.5(19)	Vegetation clearance, other than that specifically provided for in Rule C6.4.5(14) Provided that: **a) Vegetation clearance exceeds 10m² per contiguous 100m of Riparian Management Area and/or exceeds 10m² over any 24 month period;** and b) The vegetation is not the understorey of plantation forest, cleared in accordance with a consent granted under C9.1.6(38). a) The activity is not within the Riparian Management Area of a waterbody that is of an Aquatic Ecosystem Waterbody identified in Schedule G15 or an Outstanding Waterbody as identified within Schedule G18 of the Plan: **b) The vegetation clearance is not as a result of cable haul logging across a surface waterbody** **c) The vegetation clearance is not of plantation forest species within 10m of the bank of a Protected Watercourse identified in Schedule G21**	**Restricted Discretionary** Matters of discretion a) the timing and duration of the activity b) the area and location of the activity c) any vegetation that is to be retained d) potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, including revegetation type and density; and (for the purposes of section 31) amenity value, access and landscape. e) effects on the habitat of both indigenous and introduced species and the provision of wildlife corridors f) methods necessary to avoid, remedy or mitigate stream bank erosion. g) Effects on the water quality of waterbodies, from sediment, for example (for the purposes of section 30) h) effects of changed shading on aquatic habitat (for the purposes of section 30) i) heritage values in the heritage alert layer (for the purposes of section 31)	There will be vegetation clearance within the riparian areas of non-scheduled water bodies that will exceed 10m². As outlined in the Environmental Management Plan (Appendix 13) , riparian areas have been identified as sensitive areas that will require a site visit by an ecologist during detailed design phase. The site assessment will determine whether the proposed works will have a moderate or higher level of effect prior to mitigation on any stream, river or wetland or associated fauna such as birds, fish or amphibians, if the proposed works or route cannot be modified to avoid this affect, then the area will be managed as a "Confirmed Biodiversity Area" and an EMP will be required. Should the assessment determine that the affects will be less than minor, the standard mitigation methods will apply, which are outlined in the CMP. Appendix 8 for the CMP
6.4.5(20)	Land disturbance that exposes or disturbs more than 10m² of earth per contiguous 100m of Riparian Management Area and/or exposes or disturbs more than 10m² of earth over any 24 month period. Provided that: a) It is not a result of cable haul logging across a surface water body	**Restricted Discretionary** Matters of discretion Council will restrict its discretion to matters a)- h) (s30) and matters a) to g) (s31) listed in Rule C6.4.5(19) above.	There will be land disturbance within the riparian areas to establish water body crossings and trail construction, that will be considered under this rule.

6.4.5(21)	Erection of new structures or alteration or additions to existing structures that is not subject to Rule 6.4.5(17) Provided that: a) This rule excludes the following: • Fencing; or • structures associated with flood management, river control, or soil conservation purposes	**Restricted Discretionary** Matters of discretion a) the timing and duration of the activity b) the cumulative effect of the activity c) potential effect on the values associated with water quality, natural character, biodiversity, and significant habitat of indigenous fauna; and (for the purposes of section 31) , amenity value, access and landscape. d) methods necessary to avoid, remedy or mitigate stream bank erosion. e) the area, location and size of the structure (for the purposes of section 31) f) proximity to existing structures (for the purposes of section 31) g) conformity with the nature and extent of existing structures (for the purposes of section 31) h) heritage values in the heritage alert layer (for the purposes of section 31)	Construction of water body crossings may require structures within the riparian management area.
C7 Land Management			
C7.1.6.1 General Standards- Land Management			
7.1.6.1	A. No activity shall cause conspicuous change in colour or natural visual clarity of any off-site receiving water after reasonable mixing. B. No vegetation, slash, spoil or other debris shall be: i. directly deposited into a permanently flowing water body, lake, wetland or the sea, or be deposited into a position where it can	All land disturbance activities shall be managed to ensure that the general standards listed in C7.1.6.1 shall be met. **Standards Met**	The Construction Management Plan includes methods and standards to be met during any activities that involve land disturbance. Appendix 8 CMP

	readily enter, or be carried into a permanently flowing water body, lake, wetland, or the sea. ii. left in such a position described in (i) above where the vegetation exceeds • 100mm diameter and 3 metres in length; or • 100mm diameter and any lesser length, where the vegetation or slash may cause diversion, damming, erosion or result in movement of debris and deposition downstream. C. All land disturbance activities shall include runoff controls around the area of disturbance where necessary to prevent concentration of runoff causing, erosion, scour and sediment discharge offsite. D. Where an activity results in areas of exposed ground greater than a 0.5ha contiguous area over a 12 month period on any one site excluding firebreak sites, these areas shall be revegetated to give a ground cover of 75% of that area within 12 months of the activity ceasing. E. Land disturbance batters and side-castings are to be stabilised by methods such as surface revegetation and drainage to avoid slumping and the generation of sediment. F. Spoil and fill shall not be placed over vegetation other than grass, or placed in a position where it can cause erosion.		
7.1.6(7) Land Overlay 1	Ground levelling involving side-cutting deeper than 1 metre that meets the General Standards, where applicable.	Controlled Matters limited to a) Timing and duration of the activity to avoid wet ground conditions	All land disturbance activities shall be carried out to meet those general permitted standards, as outlined in the CMP.

		b) Placement and management of cuts and fills likely to cause slope instability c) Methods of sediment control d) Impact of any sediment generation on waterbodies, including any impact on aquatic and wetland ecosystems e) Heritage values in the heritage alert layer	The Landscape Management Plan includes earthworks mitigation, which requires track location/construction to avoid cuts, with the trail alignment to follow the natural contours (3.1 Earthworks LMP- Appendix 14/D) However, where there is a functional need, the construction of the trial may involve earthworks that will include side cutting of greater than 1m within Land Overlay 1.
7.1.6(16) Land Overlay 2	Land disturbance that complies with the General Standards, where applicable. a) The activity involves side-cutting more than 0.5m deep over a contiguous length greater than 100m in any 3 month period; OR b) The activity causes the disturbance of more than $50m^3$ of soil on land in any 3 month period.	Controlled Matters limited to a) Timing and duration of the activity to avoid wet ground conditions b) Placement and management of cuts and fills likely to cause slope instability c) Methods of sediment control d) Impact of any sediment generation on waterbodies, including any impact on aquatic and wetland ecosystems e) Heritage values in the heritage alert layer	All land disturbance activities shall be carried out to meet those general permitted standards, as outlined in the CMP. The Landscape Management Plan includes earthworks mitigation, which requires track location/construction to avoid cuts, with the trail alignment to follow the natural contours (3.1 Earthworks LMP- Appendix 14/D) However, where there is a functional need, the construction of the trial may involve earthworks that will may include both a) and b) for those areas within Land Overlay 2.
7.1.6(30) Land Overlay 3	Land disturbance Provided that: a) The activity involves side-cutting of more than 0.5m deep over a contiguous length greater than 20m in any 3 month period; OR b) Causes the disturbance of more than $10m^3$ of soil on land in any 3 month period.	Restricted Discretionary Matters of discretion Council shall restrict its discretion to the matters a)- g) specified below: a) Timing and duration of the activity b) The area and location of the activity. c) Placement and management of cuts and fills likely to cause slope instability d) Methods of sediment control e) Impact of any sediment on waterbodies, including any impact on aquatic and wetland ecosystems f) Heritage values in the heritage alert layer	All land disturbance activities shall be carried out to meet those general permitted standards, as outlined in the CMP. The Landscape Management Plan includes earthworks mitigation, which requires track location/construction to avoid cuts, with the trail alignment to follow the natural contours (3.1 Earthworks LMP- Appendix 14/D) However, where there is a functional need, the construction of the trial may involve earthworks that will may include both a) and b) for those areas within Land Overlay 3.

		g) Whether, in the case of LO3A land, the activity is in accordance with a Works Plan certified pursuant to Standard C7.1.6.2(A) c).	
C9 Natural Heritage			
C9.1.6.2 Specific Standards			
A- Method of Certification	a) When making a determination under Rule C9.1.6(34), the Consent Authority may take into account the extent to which any adverse effects of the indigenous vegetation clearance will be avoided, remedied or mitigated. b) Before making a determination under Rule C9.1.6(34), the Consent Authority must take into account the recommendations in an assessment report prepared by an approved ecologist as to whether the area to be cleared contains significant indigenous vegetation or significant habitat of indigenous fauna. c) Gisborne District Council will at all times make available a list of ecologists approved to provide assessment reports for the purposes of Rule C9.1.6(34). When preparing and amending the list Gisborne District Council must: i. Consult with the Department of Conservation, iwi, Royal Forest and Bird Protection Society of New Zealand Incorporated, Eastland Wood Council Incorporated and Federated Farmers of New Zealand Gisborne Wairoa Province Incorporated (or any successor entities); and		The Ecological Survey and Management Plan includes details of a pre-construction survey methodology which includes a desk top study and if required, a site visit, where an assessment shall be completed. If the assessment identifies a moderate or higher level of effect and the proposed route or works cannot be modified to avoid this affect, then this will be considered a "Confirmed Biodiversity Area" under the resource consent conditions and an EMP is required. Appendix 13 The assessment will include those requirements listed in C9.1.6.2

	ii. Take into account the professional qualifications and experience of any prospective ecologist, including experience within any East Coast area of the North Island. For the avoidance of doubt, it is not necessarily mandatory that any prospective ecologist have experience within any East Coast area of the North Island. The list may be added to and/or amended from time to time as required. For the avoidance of doubt, the list may include an ecologist engaged by an applicant and/or an ecologist employed by Gisborne District Council. d) An assessment report for the purposes of Rule C9.1.6(34) need only include such detail as corresponds with the scale and significance of the effects that the proposed activity may have on the environment. e) An assessment report for the purposes of Rule C9.1.6(34) must: i. Assess all indigenous vegetation within the same rating unit that is continuous (or nearly continuous) with the area/s proposed for clearance ("assessment area") as well as the effects of any indigenous vegetation enhancement measures within the same ecological district that will be implemented should some clearance proceed; and ii. Include a scaled map and/or recent aerial photograph showing the		

	assessment area and its context, provided that any aerial photograph must include the approximate date on which it was taken; and iii. Include a vegetation map and description of the vegetation types making up the assessment area; and iv. Assess the significance of the indigenous vegetation and habitat of indigenous faunas in the assessment area based on the following matters: 1. representativeness – for instance whether the area is a good example of an indigenous vegetation or habitat type within the Gisborne district; 2. diversity – for instance whether the area includes natural diversity of landform, ecosystems, flora or fauna; 3. rarity – for instance whether the area contains nationally or regionally rare flora, fauna, ecosystems or landforms or is regularly used by nationally or regionally rare fauna; 4. ecological viability (for instance the area's ability to maintain itself without active management; 5. size and shape and 6. context – for instance the area's relationship with other areas of indigenous vegetation including any ecological linkages or corridors to other areas of significant		

	indigenous vegetation or habitats of indigenous fauna; and 7. naturalness; and 8. the importance of the assessment area for breeding, feeding, roosting or loafing areas used by threatened indigenous fauna on a regular or annual basis. For the avoidance of doubt the words "for instance" in paragraphs (1) to (4) and (6) are not limiting but are referring only to an example of the type of matter that might be considered in each paragraph		
C9.1.6 Outstanding Landscape Area Overlay			
9.1.6(10) Outstanding Landscape Area Overlay	Vegetation clearance, other than that specifically permitted or authorised by another rule. Provided that: a) Vegetation clearance exceeds 500m^2 in any contiguous area and/or exceeds 500m^2 over any 12 month period.	Restricted Discretionary Matters of discretion a) the timing and duration of the activity b) the area and location of the activity c) any vegetation that is to be retained d) potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape, including revegetation type and density as they impact on these values e) effect on the water quality of waterbodies f) heritage values in the heritage alert layer.	The trail will be mostly wayfinding and will follow the natural contours of the landscape. Vegetation clearance maybe required which will involve selective shrub or tree felling. Whilst this will be kept to a minimum, as the rule refers to area as being contiguous and or 12month period, it is considered that the activity will trigger this rule.
9.1.6(12)	Land Disturbance. Provided that:	Restricted Discretionary Matters of discretion a) the timing and duration of the activity;	The trail will be mostly wayfinding and will follow the natural contours of the landscape. Land disturbance maybe required and whilst this will be kept to a

Outstanding Landscape Area Overlay	a) The activity exposes more than 10m^2 of earth measured in a vertical plane view in any three month period, or disturbs more than 10m^3 of earth in any three month period	b) area, location and length of the activity with particular regard to conformity with existing landforms; c) placement and management of cuts and fills likely to be visually dominant in the landscape; d) potential effect, especially of any cut and fill areas, on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape, including revegetation type, timing and density as they impact on these values; e) effects on water quality of waterbodies; f) heritage values in the heritage alert layer.	minimum particularly within sensitive areas such as Outstanding Landscape Area overlay, there will be land disturbance that may expose more than 10m^2 of earth and/or 10m3 of earth in a 3 month period. The earthworks design will include input from the project Landscape Architect and Ecologist and will consider the long and cross section, with the aim of tying into the natural contours and final formation to encourage natural regeneration. The steps outlined in the Heritage Management Plan will manage those effects on heritage values.
9.1.6(13) Outstanding Landscape Area Overlay	Erection of new structures or alteration or additions to existing structures on land that is not within a residential zone. Provided that: a) The structure exceeds 2.5m in height; or b) Cannot be contained within a volume of 25m³.	Restricted Discretionary Matters of discretion a) the timing and duration of the activity b) the cumulative effect of the activity c) proximity to existing structures d) conformity with the nature and extent of existing structures e) the area, location and size of the structure with particular regard to conformity with existing landforms f) the structure's visual dominance in the landscape g) any vegetation screening and backdrop h) potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna,	The trail runs through areas identified as Outstanding Landscapes. There maybe some structures that will be required for the safety of trail users and to manage environmental impacts (for example foot bridges or establishment of shelters/huts). The Landscape Management Plan (LVA Appendix D) (Appendix 14) outlines mitigation measures that shall be applied at detailed design for structures. (Section 4)

		amenity value and landscape i) heritage values in the heritage alert layer.	
C9.1.6 Protection Management Area Overlay			
9.1.6(23) Protection Management Area Overlay	Vegetation clearance, other than that specifically permitted or authorised by another rule. Provided that: a) Vegetation clearance exceeds 500m^2 in any contiguous area and/or exceeds 500m^2 over any 12 month period.	**Restricted Discretionary** Matters of discretion a) the timing and duration of the activity b) the area and location of the activity c) any vegetation that is to be retained d) potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape, including revegetation type and density as they impact on these values e) effect on the water quality of waterbodies f) heritage values in the heritage alert layer.	The trail will be mostly wayfinding and will follow the natural contours of the landscape. Vegetation clearance maybe required which will involve selective shrub or tree felling. Whilst this will be kept to a minimum, as the rule refers to area as being contiguous and or 12month period, it is considered that the activity will trigger this rule. The draft EMP outlines the methodology for pre-construction ecological assessment and surveys for each detailed design and construction stage. Those matters listed will be addressed with the completion of those surveys and if required, application of the relevant management plan.
9.1.6(25)	Land disturbance, provided that: a) The activity exposes more than 100m2 of earth measured in a vertical plane view in any three month period, or disturbs more than 100m3 of earth in any three month period.	**Restricted Discretionary** Council shall restrict its discretion to the matters a) - f) specified below: a) the timing and duration of the activity; b) area, location and length of the activity with particular regard to conformity with existing landforms; c) placement and management of cuts and fills likely to be visually dominant in the landscape; d) potential effect, especially of any cut and fill areas, on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape, including revegetation type,	The trail will be mostly wayfinding and will follow the natural contours of the landscape. Land disturbance maybe required and whilst this will be kept to a minimum particularly within sensitive areas such as Protected Management overlay, there will be land disturbance that may expose more than 100m^2 of earth and/or 100m3 of earth in a 3 month period. The earthworks design will include input from the project Landscape Architect and Ecologist and will consider the long and cross section, with the aim of tying into the natural contours and final formation to encourage natural regeneration. The steps outlined in the Heritage Management Plan will manage those effects on heritage values

		timing and density as they impact on these values; e) effects on water quality of waterbodies; f) heritage values in the heritage alert layer.	
9.1.6(26)	Erection of new structures or alteration or additions to existing structures. Provided that: a) The structure exceeds 2.5m in height; or b) Projects an area of more than $10m^2$, measured in a plan view; or c) Cannot be contained within a volume of $25m^3$.	**Restricted Discretionary** Matters of discretion a) the timing and duration of the activity b) the cumulative effect of the activity c) proximity to existing structures d) conformity with the nature and extent of existing structures e) the area, location and size of the structure with particular regard to conformity with existing landforms f) the structure's visual dominance in the landscape g) any vegetation screening and backdrop h) potential effect on the values associated with natural character, biodiversity, significant habitat of indigenous fauna, amenity value and landscape i) heritage values in the heritage alert layer.	One of the considerations during the initial trail location was to avoid PMAs, however, where there was not an alternative, the trail is proposed to run through some scheduled sites. There maybe some structures that will be required for the safety of trail users and to manage environmental impacts (for example foot bridges or establishment of shelters/huts). The Landscape Management Plan (LVA Appendix D) (Appendix 14) outlines mitigation measures that shall be applied at detailed design for structures. (Section 4) Also refer to procedure outlined in the draft Ecological Management Plan to manage any effects on ecological values.
C11.1 - General Controls Signs			
C11.1.6.1 General Standards			
	The following General Standards shall apply to the display of signage identified as permitted activities: A. Location		There will be the establishment of information panels and signs associated with Te Ara Tipuna, which will require consents.

	a) Signage on land zoned residential, reserve or Rural Industrial A, shall be located on the site/s to which they relate. b) Signs shall not be located on or protrude above any ridgeline. c) Signs shall not restrict visibility to or from intersections and property access. Note: Attention is drawn to the requirements of the New Zealand Transport Agency's "Road and Traffic Standards No. 6 Guidelines for Visibility at Driveways. B. Content and Design a) Signs shall be maintained to a professional standard so that they do not adversely affect the visual amenity of the area. b) The design does not conflict or cause confusion with traffic signs or signals; c) Portable signs (excluding traffic signs) shall be a maximum of 700mm wide and 1m in height; d) The message shall be clear, concise and easy to read; e) The minimum lettering height shall be 120mm where the posted speed limit is less than 70 km/hr and 160mm where the posted speed limit is 70km/hr or greater; f) The sign shall not reflect light onto road users. C. Duration of Display		

	a) Temporary signs shall be removed no later than seven calendar days after the completion of the event or the activity to which they relate. b) Portable signs shall only be displayed during the business hours of the activity to which the sign relates. c) Permanent signs shall be removed when no longer required. D. Signs in the Road Reserve a) Signs (excluding traffic signs) shall not be placed on the median strip or carriageway of any road. b) Signs (excluding traffic signs) shall not be placed in Council road reserve unless provided for by another rule. c) Portable signs (excluding traffic signs but including sandwich boards) shall only be located on the grass berm or, where there is no berm, portable signs shall be located no more than 400mm from the kerb. d) Signs (excluding traffic signs) shall not be placed in the State Highway Road Reserve where the posted speed limit is greater than 50 km/h. Note • Attention is drawn to New Zealand Transport Agency bylaws for Signs within the		

	Road Reserve of State Highways, and any subsequent amendments.		
11.1.6(8) Signs (all zones)	Permanent signs located in any Natural Heritage Overlay and not provided for as Permitted or Restricted Discretionary activities	**Discretionary**	There will be the establishment of information panels and signs associated with Te Ara Tipuna, which will require consents.
11.1.6(10) Signs (all zones)	Signs not specifically provided for as Permitted or Restricted Discretionary activities	**Discretionary**	There will be the establishment of information panels and signs associated with Te Ara Tipuna, which will require consents.
11.1.11(3) Signs (Rural Zone)	Permanent signs located in any Natural Heritage Overlay and not provided for as Permitted or Restricted Discretionary activities	**Discretionary**	There will be the establishment of information panels and signs associated with Te Ara Tipuna, which will require consents.
11.1.11(4) Signs (Rural Zone) For signs within Road Reserve	Signs listed as Permitted which do not comply with the rules, and are not provided for as Restricted Discretionary Activities.	**Discretionary**	There will be the establishment of information panels and signs associated with Te Ara Tipuna, which will require consents.

Permitted Activities

DD4.6.1C(3) Rural Residential	
4.6.1C(3)	Planting of vegetation b) No vegetation shall be allowed to grow in a position which will shade any part of the carriageway of any sealed public road between the hours of 10am and 2pm on the shortest day of the year unless topography is already preventing direct access of sunlight onto that part of the carriageway. c) No vegetation (excluding shelterbelts) shall be planted closer than 20m to the centreline of the carriageway of any formed public road. d) No shelterbelt shall be planted closer than 9m to the centreline of the carriageway of any formed public road. e) No vegetation (excluding shelterbelts) shall be planted closer than 10m to an adjoining property (excluding formed public roads). f) No vegetation shall be planted closer than 30m to an existing dwelling or curtilage on an adjoining property, unless the curtilage fence line closest to the property boundary exceeds a length of 50m. In such cases, the dwelling owner shall determine which 50 metre portion of the curtilage fence line shall be provided with a 30 metre setback (e) above) shall otherwise apply.
DD4.6.1E- Rural General Zone (Rural G)	
4.6.1E(2)	b) No vegetation shall be allowed to grow in a position which will shade any part of the carriageway of any sealed public road between the hours of 10am and 2pm on the shortest day of the year unless topography is already preventing direct access of sunlight onto that part of the carriageway. c) No vegetation (excluding shelterbelts) shall be planted closer than 20m to the centreline of the carriageway of any formed public road. e) No vegetation (excluding shelterbelts) shall be planted closer than 10m to an adjoining property (excluding formed public roads). f) No vegetation shall be planted closer than 30m to an existing dwelling or curtilage on an adjoining property, unless the curtilage fence line closest to the property boundary exceeds a length of 50m. In such cases, the dwelling owner shall determine which 50 metre portion of the curtilage fence line shall be provided with a 30 metre setback. Rule DD4.6.1E(2) e) shall otherwise apply
DD5.6.1B Neighbourhood Reserve Zone	
5.6.1B(5)	Routes for pedestrians and cyclists, including walkways, footpaths, cycle tracks, and bridges **Permitted**
5.6.1B(6)	Vegetation planting or clearance **Permitted**

DD5.6.1C- Heritage Reserve Zone	
5.6.1C(6)	Passive and outdoor recreation excluding the use of animals or vehicles, except on driveways, accessways and carparks **Permitted**
DD5.6.1D- Amenity Zone	
5.6.1D(4)	Routes for pedestrians and cyclists, including walkways, footpaths, cycle trails, and bridges **Permitted**
C3.14.3- Coastal Environment Overlay	
3.14.3(4)	Vegetation Clearance a) The vegetation comprises trees or shrubs or other plants not exceeding 30cm d.b.h, and scattered amongst pasture. **Permitted** Whilst the proposed route chosen will aim to avoid areas of vegetation, there may be some minor vegetation removal of shrubs and trees that scattered amongst pasture required. This activity will be considered permitted in the Coastal Environment Overlay.
C4 Heritage	
	The trail route and land disturbance associated with the construction will avoid buffer areas of a site listed in Schedule G2A and therefore consents for this activity have not been applied for. Refer to the Heritage Management Plan with regards to management of effects on heritage sites.
C6.2.3 Rules for Point Source Discharges	
6.2.3(2)	The discharge of stormwater from land, roofs, paved areas and roads, or diversion of the same to a public stormwater network, except: a) From industrial or trade premises; or b) Discharges to Regionally Significant Wetlands and Outstanding Waterbodies identified in Schedule G17 (Regionally Significant Wetlands) and G18 (Outstanding Waterbodies) not lawfully established before the date of notification of this plan.. a) Discharge shall be by pipe, open drain, swale, constructed wetland or vegetated filter into a natural watercourse which is the natural receiver of surface drainage water from that area; … c) The discharge shall not contain any wastes from an industrial or trade process; d) The discharge shall not cause erosion of the banks or bed of the watercourse at, or downstream of, the discharge point;

	e) The discharge shall not give rise to or exacerbate any flooding of land upstream or downstream of the discharge point in rainfall events up to the 10 per cent AEP or flooding of dwellings on other properties in rainfall events up to the 1 per cent AEP; f) The discharge shall not contain hazardous substances, agricultural chemicals, or cause exceedance in trigger values for 95% species protection for substances that are toxic to aquatic ecosystems (as measured relative to the ANZECC Guidelines for Fresh and Marine Water Quality, 2000) in receiving water bodies after reasonable mixing; g) The discharge shall meet the following water quality standards downstream of the discharge point after reasonable mixing: i. No conspicuous change in the colour or visual clarity of the receiving water; ii. No emission of objectionable odour; iii. No production of conspicuous oil or grease films, scums or foams, or floatable materials; iv. No rendering of fresh water unsuitable for consumption by farm animals; v. No significant adverse effects on aquatic life. Advisory Note: Demonstration of compliance with this Rule is required to be given to the Council. Compliance with this rule will be deemed to have occurred where the stormwater treatment is undertaken in accordance with Stormwater Management Devices: Design Guidelines Manual 2003. Technical Publication 10 (TP10) of the Auckland Council. Stormwater off the impervious surfaces shall be managed to meet the permitted standards of 6.2.3(2). Details to be included the Construction Management Plan (CMP) **Permitted**	
C6.2.18 Rules for Unreticulated Wastewater Treatment, Storage and Disposal (Wastewater System)		
C6.2.18.1 General Standards		
6.2.18.1 .	A. Except where explicitly stated in a Rule, discharge activities must comply with the following General Rules in addition to any relevant specific Rules in the Plan b) Where new wastewater treatment and land application systems or other alternative systems (except greywater systems) are established there shall be no sewer network available;	**Standards met.** The trail runs through rural and coastal areas which are non-reticulated. Self composting toilets will be provided which do not require any discharges into the environment. Greywater disposal will be required for huts. The location and type of disposal will meet the general standards, including setbacks. **Standards met.**

	c) Discharges shall not emit offensive or objectionable odour; d) The area of the discharge shall not be into or onto land likely to be subject to slippage, subsidence, erosion or inundation;. e) Discharges shall not induce slippage, subsidence, erosion or inundation on any property; f) Discharges shall not be a point source discharge into a waterbody, artificial waterbody or coastal water; g) There shall be no intermittent or permanent discharge, overflows or seepage onto land surface or into any waterbody, artificial waterbody or coastal water; h) Discharges shall not be aerosolised or applied onto land by uncovered surface or spray irrigation; i) The discharge shall be applied into land within the legal boundaries of the property where the discharge originates from; and j) Wastewater system selection, design, construction and installation shall follow best practice and be informed by standard(s) recognised by Council. The Gisborne District Council Guidelines for On-site Wastewater Management 2014 provide a minimum standard for system selection, design, construction and installation. However alternative proposals will be assessed on their merits	

6.2.18(3)	The discharge of greywater into land from an individual on-site greywater system if the discharge complies with all of the standards in this Rule a) The greywater originates from a single dwelling unit, a marae, public hall, club facility, an institutional, industrial or commercial facility or a public sanitary facility located on the same property as it is disposed on; b) The greywater discharge shall not contain any: i. Human waste flows from toilets or urinals; ii. Commercial kitchen flows; iii. Commercial laundry flows; iv. Animal effluent or kennel/cattery wash-down flows; or commercial or industrial waste flows other than greywater flows generated from facilities serving employees, residents, students or guests; v. Domestic kitchen flows and laundry tub flows if the discharge is from a greywater diversion system. c) The setback and clearance distances listed in Appendix H23 shall be met; d) The greywater shall pass through a treatment unit which includes a filtration system before being discharged into land; e) The treatment unit shall have sufficient capacity to receive influent from sanitary facilities connected to it and treatment capability for that influent and specific use. Design flow allowances shall comply with	**Permitted**	Enviro loo used, fully self contained and ventilated system. Waste decomposed into dry stabilised material 5% original volume. Enviro Loo underground composting toilet system - greenloo.org.nz

	Appendix H24 Table 1 - Wastewater Flow Design Allowances; f) The greywater shall be discharged into land via a subsurface drainage system; g) The discharge rate into land shall not exceed the maximum design loading rate for the soil permeability and the land application method; h) Any greywater diversion system shall be able to automatically divert to either a sewer network or a wastewater treatment unit if blockages occur that result in malfunction; i) The greywater system shall be operated, maintained and serviced in accordance with manufacturer's specifications by a person with sufficient expertise and maintenance records shall be made available by the landowner to the Consent Authority upon request.		
C6.3 Activities in the Beds of Rivers and Lakes			
6.3.2(5) Culverts	Erection, placement, alteration or extension of a culvert, in, on, or under the bed of a river, stream or lake, and associated bed disturbance, where the culvert: a) Is not located in a wetland; b) Is not located in an Outstanding Waterbody; c) Is not located within the reticulated services area of Gisborne City or within a rural township; d) The catchment of the stream or river in which the culvert is located does not exceed 100ha or, where the catchment of the stream or river exceeds 100ha, the culvert has been approved through a Farm Environment Plan certified by the Consent Authority; **Permitted standards** a) The minimum culvert diameter shall be the larger of: I. 375mm; or II. 20% wider that the natural width of the stream plus 0.5m; III. Except where a Farm Environment Plan can demonstrate that a smaller culvert will not be contrary to the other permitted activity standards in this rule and this is certified by the Consent Authority b) Any culvert shall convey at least 20% annual exceedance probability (5 year) flood without heading up more than 0.5 metres or causing any significant increase in upstream water levels on neighbouring properties;		

	c) The culvert invert shall be installed a minimum of 0.1 metres below the level of the bed of a river, stream or lake; d) Construction shall ensure that: I. Fish passage is maintained following construction; II. Sediment discharge is minimised; e) Within 48 hours of construction commencing within the river channel or lake, ambient levels of sediment and fish passage are returned; f) All equipment and surplus construction materials shall be removed from the river or lake bed and the floodplain on the completion of that activity; g) Culvert inlets (entry point) and outlets (exit point) shall be protected against erosion; h) Culverts shall include provision for overflow to ensure safe passage of flood flows; i) The maximum fill height over a culvert shall be 2.5 metres; j) The structure shall be maintained to give effect to its design capacity, including remedying as soon as practicable any blockage or obstruction occurring as a result of the structure; k) Where the culvert is in a waterbody listed in Schedule G15, the owner of the structure shall notify Gisborne District Council of the location of the culvert at least five working days prior to construction; l) The maximum length of a culvert with no slope shall be 20 metres; **Permitted**
6.3.2(8)	The use, erection, reconstruction, placement, alteration and extension of structures, including bridges, cables, lines, pipelines and suspended fences, which are suspended over the bed of a lake or river which do not have any contact with the bed of the river where structures are suspended at least 500mm above the 2% AEP flood level (50 year flood) at the lowest point of the structure. **Permitted** .
6.3.2(3)	The maintenance, repair, alteration, reconstruction and extension of lawfully established structures (including river control works, but excluding the extension of dams which act to impound water) occurring in, on, under or over the beds of lakes, rivers and streams. Provided that: a) No increase or extension occurs to structures within Outstanding Waterbodies; b) In all other waterbodies any increase in the size of the structure is not more than 10% of the size of the structure when legally established, provided the increase does not exceed the Permitted Activity limit for structures authorised by a Permitted Activity rule; c) From 1 May 2020 the structure has not been identified as preventing the passage of migrating fish; The structure will not cause more than minor adverse flooding or erosion effects to land, property owned or occupied by another person, buildings or accessways. **Permitted Standards** a) Any materials used for maintenance, repair, alteration, reconstruction or extension do not include vehicle or machinery bodies; b) There shall be no discharges of contaminants to water from maintenance activities; c) The disturbance of the bed shall be limited to the extent necessary to carry out the activity; d) Fish passage shall be impeded for no more than 24 hours; and e) The disturbance of the waterbody and release of sediment resulting from the activity shall not occur for a period greater than: i. A total period of 12 consecutive hours per maintenance activity in any waterbody listed in Schedule G15;

	ii. A total period of two consecutive days per maintenance activity in any waterbody not otherwise covered by (i) **Permitted**
C6.4.5 Rules for Riparian Management Areas	
6.4.5(1)	Vegetation clearance within the Riparian Management Area of an Aquatic Ecosystem Waterbody within Schedule G15 **Permitted Standards** a) The vegetation comprises exotic trees or shrubs or other exotic plants scattered amongst pasture; or b) The clearance is required under a Regional Pest Management Plan under the Biosecurity Act 1993; or c) The clearance is hand-clearing of exotic vegetation for fencelines, restoration of riparian management areas, and public access points, and is surficial, and not more than 4m total width; or d) The clearance is plantation forestry thinning resulting in at least 250 evenly distributed trees remaining per hectare; or e) The clearance is the grazing of pasture by stock in accordance with Rule C6.3.7.1provided that it is not an area identified as Overlay 3A in the land management, soil conservation provisions of the Tairāwhiti Plan; or f) Where the vegetation clearance is for the establishment of a river crossing point: i. The access does not exceed more than 4.5m in width; ii. The activity does not affect more than 4.5m per contiguous 100m of riparian area frontage; iii. The crossing shall be made at, or near to, right angles to the flow of the water in the river or stream, ensuring minimal roading in the Riparian Management Area; iv. The area shall be stabilised as soon as practicable, but no later than three months from the end of the activity; v. All practicable steps shall be taken to keep stormwater away from the stream crossing approach **Permitted**
6.4.5(7)	Clearance of vegetation and land disturbance associated with establishing access to a river crossing point Provided that: a) The activity is not within the Riparian Management Area of a waterbody that is of an Aquatic Ecosystem Waterbody identified in Schedule G15 or an Outstanding Waterbody as identified within Schedule G18 of the Plan:. **Permitted Standards** a) The activity does not affect more than 4.5m per contiguous 100m of Riparian Management Area frontage; and b) The access does not exceed 4.5m in width **Permitted**
C7 Land Management	
C7.1.6.1 General Standards- Land Management	
7.1.6(1) Land Overlay 1	Land disturbance and vegetation clearance activities which are not specifically provided for in any other rule in this Chapter **Permitted**
7.1.6 (2) Land Overlay 1	Trenching The area is backfilled within 3 days of the trench being used.

	Permitted
7.1.6 (6) Land Overlay 1	Vegetation clearance a) The vegetation comprises trees or shrubs or other plants scattered amongst pasture **Permitted**
7.1.6(10) Land Overlay 2	Land disturbance and vegetation clearance activities which are not specifically provided for in any other rule in this Chapter **Permitted**
7.1.6(11) Land Overlay 2	Trenching The area is backfilled within 3 days of the trench being used. **Permitted**
7.1.6(15) Land Overlay 2	Vegetation Clearance a) The vegetation comprises trees or shrubs or other plants scattered amongst pasture **Permitted**
7.1.6(21) Land Overlay 3	Land disturbance and vegetation clearance activities which are not specifically provided for in any other rule in this Chapter. **Permitted**
7.1.6(22) Land Overlay 3	Trenching The area is backfilled within 3 days of the trench being used **Permitted**
7.1.6(26) Land Overlay 3	Vegetation clearance a) The vegetation comprises trees or shrubs or other plants scattered amongst pasture **Permitted**
C9.1.6 Outstanding Landscape Area Overlay	
9.1.6(4) Outstanding Landscape Area Overlay	Vegetation clearance. **Permitted Standards** a) The vegetation comprises trees or shrubs or other plants not exceeding 30cm d.b.h., and scattered amongst pasture; **Permitted**
C9.1.6 Protection Management Area Overlay	
9.1.6(17) Protection Management Area Overlay	Vegetation clearance. Provided that: a) The vegetation comprises exotic trees or shrubs or other exotic plants scattered amongst pasture **Permitted**
C9.1.6 Indigenous Vegetation Clearance outside the Protection Management Area Overlay	

9.1.6(27) Indigenous Vegetation Clearance Outside the Protection Management Area Overlay	Indigenous vegetation clearance, which is not subject to any other rule in the Plan **Permitted**
9.1.6(28) Indigenous Vegetation Clearance Outside the Protection Management Area Overlay	Indigenous vegetation clearance where the vegetation to be cleared comprises trees, shrubs or other plants scattered amongst pasture. **Permitted**
9.1.6(34 Indigenous Vegetation Clearance Outside the Protection Management Area Overlay)	Indigenous vegetation clearance where the Consent Authority has certified that the area to be cleared does not contain significant indigenous vegetation or significant habitat of indigenous fauna. Specific standard A in C9.1.6.2 **Permitted**
C11.1 - General Controls Signs	
11.1.11(1) Signs (Rural Zones)	Permanent and temporary signs (excluding signs listed for all zones), **Permitted Standards** **General** a) Maximum height = 3m b) Maximum sign face area (per face) = 3m² c) On sites adjoining the state highway, only one permanent double-sided sign is permitted per site. **Location**

	a) Advertising signs or signs advising the name or use of a property on sites adjacent to a state highway shall be erected generally at right angles to the road frontage but angled off the direction of the traffic by approximately 5 degrees to reduce headlight glare. b) Minimum distance between signs on the same site on site frontages adjacent to arterial (excluding state highways), principal or collector roads = 80m c) Signs on site frontages adjacent to minor roads shall be located on the site to which they relate **Permitted**

Appendix 4:

Track Distances

Te Ara Tipuna Track Distances (21-10-2024)

Day	Distance (m)	Distnace (km)
1	12819	12.8
2	8802	8.8
3	19054	19.1
4	11177	11.2
5	9960	10.0
6	9978	10.0
7	23103	23.1
8	22161	22.2
Anaura Bay Loop	4458	4.5
9	12313	12.3
Te Puia (Return)	3750	3.8
Hikurangi Loop	72725	72.7
10	14125	14.1
11	10297	10.3
12	21203	21.2
Port Awanui Loop	37901	37.9
13	13375	13.4
14	11186	11.2
15	13308	13.3
16	12238	12.2
17	21305	21.3
18	16562	16.6
19	11174	11.2
20	22245	22.2
21	16730	16.7
22	13032	13.0
23 (Taxi System)	18116	18.1
24 (Taxi System)	10597	10.6
25	14893	14.9
26	15291	15.3
Total	**503878**	**503.9**

Note: These distances were taken from the BOP GIS mapping system where the google earth KML file was initially overlaid. It should be noted that the KML file used the 3D topology from the latest google earth GPS data. The BOP GIS map overlaid the KML file onto a 2D plane. It is expected that there will be a level of error due to the conversio from 3D to 2D. However, this has been checked against both Tairawhiti Maps and google earth. The above figures are inline with both sources and for all intensive purposes the track diatnace can be defined as 500km. The detailed design will complete this distance verification and will be subject to onsite contours/gradients.

Appendix 5:

Waterbody Crossings

No.	Clip on/Bridge	km range	Stream	Location	Distance (m)	Users	Asset Type	Road Type	2024 Comment	
1	Clip on	12-13km	Pouawa River	Whangara Rd - Pouaua	25	All	Existing NZTA bridge - SH35	Arterial Road	Checked	
2	Bridge	17-18km	Drain	Pre-Whangara	20	All	New bridge	N/A	Checked	Origional
3	Bridge	20-21km	Waimoko River	Whangara - Waimoko River	50	All	New bridge	Adjacent to Pa Road	Checked	Added Will need a consent under CMA
4	Bridge	23-24km	Pakarae River	End of Whanaga Beach	60	All	New bridge	N/A	Checked	To be checked
	~~Bridge~~	~~41-42km~~	~~Wairua Stream~~	~~Waihau beach~~	~~30~~	~~Cyclists~~	~~New Bridge~~	~~N/A~~	Removed as cyclist only	Removed
	~~Bridge~~	~~41-42km~~	~~Wairua Stream~~	~~Waihau beach~~	~~15~~	~~Cyclists~~	~~New Bridge~~	~~N/A~~	Removed as cyclist only	
	~~Bridge~~	~~41-42km~~	~~Wairua Stream~~	~~Waihau Beach - Waihau Stream~~	~~15~~	~~Cyclists~~	~~New Foot Bridge~~	~~N/A~~	Removed as cyclist only	
5	Bridge	47-48km	Tolaga Bay Estuary Stream	Stream into Tolaga Bay Estuary	15	All	New Foot Bridge	Adjacent to Wharf Road	Checked	Will need consent under CMA
6	Bridge	65-66km	Raponga Stream	South of Anaura	10	All	New Foot Bridge	N/A	Checked	
7	Bridge	78-79km	Waioue Stream	Northern end of Anaura Bay Beach	30	All	New bridge	N/A	Checked	
8	Bridge	81-82km	Karorotau Stream	Anaura Bay North	10	All	New Foot bridge	N/A	Checked	
	~~Bridge~~	~~N/A~~	~~N/A~~	~~Stream off end of Nuhiti Beach~~	~~30~~	~~All~~	~~New Foot Bridge~~	~~N/A~~	~~N/A~~	
9	Bridge	93-94km	Various drains	Tokomaru Bay Beach Road	5	All	Small foot bridge across open drains	Parallel to Beach Rd	Checked	
10	Bridge	93-94km	Waikoko Stream	Tokomaru Bay Beach Road	10	All	New Foot Bridge	Local Road	Checked	
11	Bridge	104-105km	Mangaropa Stream	South east of Te Puia	10	All	New Foot Bridge	N/A	Checked	
12	Bridge	104-105km	Mangaropa Stream	South east of Te Puia	10	All	New Foot Bridge	N/A	Checked	
13	Bridge	108-109km	Waikawa Stream	South east of Te Puia	80	All	New Bridge	N/A	Checked	
14	Bridge	67-68km	Makatote Stream - Hiku Loop	Hikurangi Loop	30	All	New Bridge	N/A	Checked	
15	Bridge	67-68km	Makatote Stream - Hiku Loop	Hikurangi Loop	10	All	New Bridge	N/A	Checked	
16	Bridge	67-68km	Makatote Stream - Hiku Loop	Hikurangi Loop	10	All	New Bridge	N/A	Checked	
17	Bridge	67-68km	Makatote Stream - Hiku Loop	Hikurangi Loop	10	All	New Bridge	N/A	Checked	
18	Bridge	62-63km	Makatote Stream - Hiku Loop	Hikurangi Loop - Adjacent SH35	35	All	New Bridge	N/A	Checked	
19	Clip on	60-61km	Makarika Stream	Makarika Road - Makarika Stream	70	Walkers	Existing Local Road Bridge GDC	Local Road	Checked	
20	Clip on	58-59km	Mata River	Makarika Road - Mata River	160	Walkers	Existing Local Road Bridge GDC	Local Road	Checked	
21	Bridge	46-47km	Waingakia Stream & Manganikau Stream	Mata River - Day 2 Hikurangi	40	Walkers	New bridge	N/A	Checked	
22	Bridge	35-36km	Waingakia Stream	Mata River - Day 3 Hikurangi	25	Walkers	New bridge	N/A	Checked	
23	Clip on	12-13km	Mangahoanga Stream	Tapuaeroa Road - Mangahoanga Stream	40	Walkers	Mangahonga Bridge Local Road GDC	Local Road	Checked	
24	Clip on	9-10km	Mangatiti Stream	Tapuaeroa Road	10	Walkers	Moekes Bridge Local Road GDC	Local Road	Checked	
25	Clip on	9-10km	Waiorongomai River G15A	Tapuaeroa Road - Waiorongomai River	130	Walkers	Waiorongomai Bridge Local Road GDC	Local Road	Checked	
26	Clip on	5-6km	Mangapapa & Waitaia Stream	Tapuaeroa Road - Mangapapa Stream	15	Walkers	Existing Local Road Bridge GDC	Local Road	Checked	
27	Clip on	5-6km	Mangarara Stream	Tapuaeroa Road - Mangarara Stream	20	Walkers	Mangarara Bridge Local Road GDC	Local Road	Checked	
28	Clip on	4-5km	Unknown Stream	Tapuaeroa Road	25	Walkers	Existing Local Road Bridge GDC	Local Road	Checked	
29	Clip on	3-4km	Mangarua Stream	Tapuaeroa Road - Mangarua Stream	20	Walkers	Mangarua Bridge Local Road GDC	Local Road	Checked	
30	Bridge	127-128km	Whareponga Stream	Southwest of Whareponga	40	All	New Bridge	Adjacent to Whareponga Road	Checked	
31	Bridge	135-136km	Waitekaha Stream	Waitekaha Stream - Adjacent to Tuparoa Road	40	All	New Bridge intersecting existing	Adjacent to Tuparoa Road	Checked	
32	Clip on	2-3km	Reporua Stream	Reporua - Reporua Stream	30	All	Existing Local Road Bridge GDC	Local Road	Checked	Within the CMA, indicated on maps as clip on, but will use light system due to low traffic.
33	Clip on	143-144km	Makaraka Stream	Tuparoa Road - Makaraka Stream	30	All	Existing Local Road Bridge GDC	Local Road	Checked	
34	Clip on	144-145km	Mangareia Stream	Walker Road - Mangareia Stream	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
35	Clip on	145-146km	Waihoata Stream	Walker Road	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
	~~Clip on~~	~~N/A~~	~~N/A~~	~~Waiomatatini Road - Kopuaroa Stream~~	~~20~~	~~All~~	~~Existing Local Road Bridge GDC~~	~~Local Road~~	~~Removed~~	
36	Clip on	147-147km	Mangaharei Stream	Waiomatatini Road - Mangaharei Stream	25	All	Existing Local Road Bridge GDC	Local Road	Checked	
37	Clip on	148-149km	Mangaharei Stream	Waiomatatini Road - Mangaharei Stream	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
38	Clip on	149-150km	Mangakinonui Stream	Waiomatatini Road - Mangakinonui Stream	30	All	Existing Local Road Bridge GDC	Local Road	Checked	
39	Clip on	151-152km	Waiapu River	Te Araroa Road - Waiapu River	200	All	Existing NZTA bridge - SH35	SH35	Checked	
40	Clip on	154-155km	Whakatu Stream	Te Araroa Road - Whakatu Stream	20	All	Existing NZTA bridge - SH35	SH35	Checked	
41	Clip on	157-158km	Mangakopikopiko Stream	Te Araroa Road - Mangakopikopiko Stream	10	All	Existing NZTA bridge - SH35	SH35	Checked	
42	Clip on	158-159km	Mangaoparo River	Te Araroa Road - Mangaoparo River	170	All	Existing NZTA bridge - SH35	SH35	Checked	
43	Clip on	160-161km	Paoaruku Stream	Te Araroa Road - Paoaruku Stream	80	All	Existing NZTA bridge - SH35	SH35	Checked	
44	Clip on	161-162km	Mangaiwi Stream	Te Araroa Road - Mangaiwi Stream	40	All	Existing NZTA bridge - SH35	SH35	Checked	
45	Clip on	163-164km	Mangarara Stream	Te Araroa Road - Mangarara Stream	10	All	Existing NZTA bridge - SH35	SH35	Checked	
46	Clip on	164-165km	Pukerimu Stream	Te Araroa Road - Pukerimu Stream	10	All	Existing NZTA bridge - SH35	SH35	Checked	
47	Clip on	170-171km	Poroporo River	Rangitukia Road - Poroporo River	40	All	Existing Local Road Bridge GDC	Local Road	Checked	
48	Clip on	175-176km	Maraehara River	Rangitukia Road - Maraehara River	70	All	Existing Local Road Bridge GDC	Local Road	Checked	
49	Clip on	198-199km	Orutua River	East Cape Road - Orutua River	35	All	Existing Local Road Bridge GDC	Local Road	Checked	
	~~Clip on~~	~~N/A~~	~~N/A~~	~~East Cape Road - Orutua Rover~~	~~65~~	~~All~~	~~Existing Local Road Bridge GDC~~	~~Local Road~~	~~N/A~~	
50	Clip on	193-194km	Waipapa Stream	East Cape Road - Waipapa Stream	20	All	Existing Local Road Bridge GDC	Local Road	Checked	
51	Clip on	194-195km	Nohomanga Stream	East Cape Road - Nohomanga Stream	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
52	Clip on	201-202km	Waipohatuhatu Stream	East Cape Road	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
53	Clip on	201-202km	Unknown Stream	East Cape Road	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
54	Clip on	205-206km	Awatere River	East Cape Road - Awatere River	95	All	Existing Local Road Bridge GDC	Local Road	Checked	Will need consent under CMA- GDC side- existing structure
55	Clip on	211-212km	Karakatuwhero River	Te Araroa Road - Karakatuwhero River	115	All	Existing NZTA bridge - SH35	SH35	Checked	Will need consent under CMA- SH35 side- existing structure
56	Clip on	218-219km	Unknown Stream	Onepoto Road	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
57	Clip on	220-221km	Unknown Stream	Wharf Road	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
58	Clip on	220-221km	Wharekahika River	Wharf Road - Wharekahika River	67	All	Existing Local Road Bridge GDC	Local Road	Checked	
59	Bridge	222-223km	Tapirau Stream	Wharekahika Road - Tapirau Stream	10	All	New bridge	Local Road	Checked	
60	Bridge	233-234km	Wharekahika River	Wharekahika River - Near Potaka Route Toilet	30	All	New bridge	N/A	Checked	
61	Bridge	237-238km	Oweka Stream	Oweka Stream - Adjacent to SH35	50	All	New bridge	N/A	Checked	
62	Clip on	252-253km	Whangaparaoa River	Pacific Coast Highway - Whangaparaoa River	160	All	Existing NZTA bridge - SH35	SH35	Checked	
63	Clip on	262-263km	Mangtoetoe Stream	Pacific Coast Highway - Mangtoetoe Stream	25	All	Existing NZTA bridge - SH35	SH35	Checked	
64	Clip on	271-272km	Waiokaha Stream	Pacific Coast Highway - Waiokaha Stream	30	All	Existing NZTA bridge - SH35	SH35	Checked	
65	Bridge	273-274km	Wairuru Stream	Pacific Coast Highway - Wairuru Stream	15	All	Adjacent to SH35	SH35	Checked	
66	Clip on	276-277km	Ruakokore River	Raukokore Bridge - Ruakokore River	215	All	Existing NZTA bridge - SH35	SH35	Checked	
67	Clip on	280-281km	Te Waiti Stream	Pacific Coast Highway - Te Waiti Stream	22	All	Existing NZTA bridge - SH35	SH35	Checked	
68	Clip on	296-297km	Kereu River	Pacific Coast Highway - Kereu River	160	All	Existing NZTA bridge - SH35	SH35	Checked	
69	Clip on	285-286km	Maraehako Stream	Pacific Coast Highway - Maraehako Stream	30	All	Existing NZTA bridge - SH35	SH35	Checked	
70	Clip on	303-304km	Puremutahuri Stream	Pacific Coast Highway - Puremutahuri Stream	40	All	Existing NZTA bridge - SH35	SH35	Checked	
71	Clip on	310-311km	Haparapara River	Pacific Coast Highway - Haparapara River	130	All	Existing NZTA bridge - SH35	SH35	Checked	
	~~Clip on~~	~~N/A~~	~~N/A~~	~~Pacific Coast Highway - Waikanae Stream~~	~~20~~	~~All~~	~~Existing NZTA bridge - SH35~~	~~SH35~~	Taxi System Utilised	
	~~Clip on~~	~~N/A~~	~~N/A~~	~~Pacific Coast Highway - Motu River~~	~~210~~	~~All~~	~~Existing NZTA bridge - SH35~~	~~SH35~~	Taxi System Utilised	
	~~Clip on~~	~~N/A~~	~~N/A~~	~~Pacific Coast Highway - Hawai River~~	~~130~~	~~All~~	~~Existing NZTA bridge - SH35~~	~~SH35~~	Taxi System Utilised	
72	Clip on	340-341km	Tarawera Stream	Pacific Coast Highway - Tarawera Stream	20	All	Existing NZTA bridge - SH35	SH35	Checked	
73	Clip on	344-345km	Torere River	Pacific Coast Highway - Torere River	55	All	Existing NZTA bridge - SH35	SH35	Checked	
74	Clip on	344-345km	Unknown Stream	Wainui Road - Drain	30	All	Existing NZTA bridge - SH35	SH35	Checked	
75	Clip on	355-356km	Waiaua River	Pacific Coast Highway - Waiaua River	95	All	Existing NZTA bridge - SH35	SH35	Checked	Within the CMA, but is a clip on bridge so will meet the permitted rules on existing structure
					3919					

No.	Riverbodies (No infastructure required)									
	~~Cyclists use existing bridge if pos~~	~~9-10km~~	~~Turiahua Stream~~	~~Turiahua Stream~~	~~60~~	~~Cyclist~~	~~Existing NZTA bridge - SH35~~	~~SH35~~	Removed as cyclist only	
1	Utilsie existing bridge	49-50km	Uawa River	Main Rd Tolaga Bay - Uawa River	135	All	Existing NZTA bridge - SH35	SH35	Checked	
2	Utilise existing bridge	60-61km	Waiokahu Stream	Kaiaua Road	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
3	Utilise existing bridge	70-71km	Hawai Stream	Lockwood Road Anaura Bay	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
4	Utilise existing bridge	70-71km	Anaura Stream/Lagoon	Lockwood Road Anaura Bay	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
5	Utilise existing bridge	72-73km	Drain	Lockwood Road Anaura Bay	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
6	Utilise existing bridge	72-73km	Waipare Stream	Lockwood Road Anaura Bay	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
7	Utilise existing bridge	78-79km	Drain	Anaura Road	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
8	Utilise existing bridge	59-60km	Kopuni Stream	Kaiaua Road						
9	Utilise existing bridge	92-93km	Waiotu Stream	Tokomarau bay Waitangi Street	20	All	Existing NZTA bridge - SH35	SH35	Checked	
10	Utilise existing bridge	92-93km	Mangahauini River	Tokomarau bay Waitangi Street	45	All	Existing NZTA bridge - SH35	SH35	Checked	
11	Utilise existing bridge	95-96km	Waitakeo Stream	Te Ariuru Tokomarau Bay	25	All	Existing Local Road Bridge GDC	Local Road	Checked	
12	Utilise existing bridge	96-97km	Drain	North of Mangamate Stream	15	All	Existing Local Road Bridge GDC	Local Road	Checked	
13	Utilise existing bridge	116-117km	Waipiro Stream	Waipiro Road crossing Waipiro Stream	30	All	Existing Local Road Bridge GDC	Local Road	Checked	
14	Utilise existing bridge	68-69km	Hiku Loop	Kopuaroa Rd - Mokokoko Stream	30	All	Existing Local Road Bridge GDC	Local Road	Checked	
15	Utilise existing bridge	55-56km	Mata River (subsidary)	Hiku Loop day 1	12	All	Existing Local Road Bridge GDC	Local Road	Checked	
16	Utilise existing bridge			Horehore Rd - Mangapokapeka Stream	10	All	Existing Local Road Bridge GDC	Local Road		
17	Utilise existing bridge	20-21km	Tapuaeroa River G15A	Pakihiroa Road - Tapuaeroa River loop day 4	175	All	Existing Local Road Bridge GDC	Local Road	Checked	
18	Utilise existing bridge	19-20km	Raparapaririki Stream - G15A, G15E	Tapuaeroa Road - Tapuaeroa River loop day 4	220	All	Existing Local Road Bridge GDC	Local Road	Checked	
19	Utilise existing bridge	17-18km	Mangapoi Steam	Tapuaeroa Road - Tapuaeroa River loop day 4	80	All	Existing Local Road Bridge GDC	Local Road	Checked	
20	Utilise existing bridge	15-16km	Mangawhairiki Stream	Tapuaeroa Road - Tapuaeroa River loop day 4	75	All	Existing Local Road Bridge GDC	Local Road	Checked	
21	Utilise existing bridge	15-16km	Unknown Stream	Tapuaeroa Road - Tapuaeroa River loop day 4	20	All	Existing Local Road Bridge GDC	Local Road	Checked	
22	Utilise existing bridge	14-15km	Unknown Stream	Wairoa River - Waiomatitini Road	20	All	Existing Local Road Bridge GDC	Local Road	Checked	
23	Utilise existing bridge	119-120km	Drain	Kiekie Marae	10	All	Existing Local Road Bridge GDC	Local Road	Checked	
24	Utilise existing bridge	9-10km	Wairoa River	Wairoa	25	All	Existing Local Road Bridge GDC	Local Road	Checked	
25	Utilise existing bridge	177-178km	Waikaka Stream	North of Rangitukia	25	All	Existing Local Road Bridge GDC	Local Road	Checked	
	~~No bridge - road~~	~~N/A~~	~~N/A~~	~~Karata Stream~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	
26	Utilise existing Trail/ bridge	359-360km	Unknown Stream	Tirohanga Dunes Trail	5	All	Existing Trail Bridge	Trail	Checked	
27	Utilise existing Trail/ bridge	360-361km	Unknown Stream	Tirohanga Dunes Trail - Tirohnaga Stream	15	All	Existing Trail Bridge	Trail	Checked	
28	Utilise existing Trail/ bridge	365-366km	Otara River	Opotiki	65	All	Existing Trail Bridge	Trail	Checked	

Appendix 6:

Design Report

Te Ara Tipuna Design Report

Process, iteration & Design Considerations

Table of Contents

1 Introduction

Te Ara Tipuna is the working title of this multi-layered project, literally meaning the ways of our forebears. It is a project to build and maintain the infrastructure of accessways for pedestrians, cyclists, and horse trekkers; local commuters, visitors, and whole-of-journey hikers, bikers, and riders. As with all kaupapa, it has layers of meaning. And it anticipates further layers of growth and development.

First, Te Ara Tipuna is an evocation of the ways of our ancestors. The way they practiced life and community; the way they interacted with the physical and metaphysical environment; the ways they used to move between whanau and hapu, undertake activities, and connect with each other; the way they were in the world, in their time, and the cultural legacy they have left.

Second, Te Ara Tipuna is intended to restore connectivity and momentum in the daily life of those who live and work in-rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday kaitiaki of the ara and the people who traverse them, locals, and manuhiri alike.

Third, Te Ara Tipuna, is the overall description of the proposed network of ara/accessways, connecting existing tracks, old and new, reviving unused trails, defunct paper roads, and encroachments, along with new mapping to create a continuous journey from one end of Te Tairawhiti to the other, through Ngati Porou and Te Whanau-a-Apanui.

Fourth, Te Ara Tipuna, provides the opportunity for a distinct tourism experience in the heart of Te Tairawhiti, on foot, cycle, and horse trekking. It opens a part of Aotearoa New Zealand where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai, and people who know how to hunt, dive, fish, cook, haka, sing, tell long stories, sly jokes, and deliver fast and furious one-liners.

Fifth, Te Ara Tipuna can offer a warm welcome and unique manaaki experience – iwi to kiwi - to fellow New Zealanders to walk into a marae, prepare kai in the kauta, eat and wash dishes, yarn by the fire, sleep in the wharenui, and head off into the day and to the next equally proud hapu along the ara.

This Proposal focuses on the foundation layer of infrastructure to create and support the ara/accessways, that together make up Te Ara Tipuna network; and, subsequently to support the wider kaupapa.

2 The Initial Proposal

2.1 Overview

In the early stages of 2021, CPS was approached by HRM Associates to take on the task of having a role in the mapping, costing and feasibility of a multi-use trailway. This multi-use trailway was seen as an opportunity for social, economic, and cultural development and exposure to both Ngati Porou and Whanau Apanui. This track is about connecting communities as well as providing a more resilient route for access along the vulnerable East Coast of New Zealand.

The initial proposal and feasibility was broken down into two stages of design as denoted by sections 2.2 & 2.3 below.

2.2 Stage 1 Design

Stage 1 of the process involved drafting the trailway route via Google Earth. The first high-level draft of the route looked at the following criteria:

- The location of the marae: These were pinned on google maps for reference with the track directed towards these where practical.
- Exposure/utilisation of existing trails: Existing routes such as Cooks Cove, the Earnest Reeve Walkway and the Anaura Bay Track had their locations noted to have the main track pass adjacent to these. Users (for that permitted use) would then have the option of utilising these.

- Passing of historic landmarks: Communities with a rich history and landmarks such as the East Cape lighthouse were noted as key focal points for exposure.
- Tourist attractions: The track passes adjacent to the Tatapouri stingray feeding, Tologa Bay Wharf and the Motu trails allowing for tourist activities and sightseeing along the journey.
- Exposure and connectivity of as many local communities as possible: Passing through all key communities was a core focus to ensuring connectivity was provided to the entire region. This also helped to break the track into a series of days in which the journey may be travelled. These communities would help to provide food and accommodation for those users.
- Proximity to existing public assets such as toilets: Public assets utilised where possible to save cost on additional infrastructure.

This revision predominantly focussed on connecting communities and exposure to points of interest that would add significant value to the track. Providing economic, cultural, and social surplus to low-exposure regions of the East Coast was a key focus. Local knowledge was utilised to identify these hotspots with a preliminary route put forward for high-level discussion purposes.

2.3 Stage 2 Design

Stage 2 took a more detailed look at the level of service provided for each mode of transport. Other considerations were as follows:

- Utilisation of public land parcels (hydro – beach, unformed roads, crown owned land parcels and other titles not privately owned).
- Practicality of access – Track grades were assessed at a high level with track width and terrain taken into account. Where horse trekkers and cyclists were perceived to have difficulty of access, alternative route were assessed where possible. The safest and most practical route was chosen.
- Walking duration – Walking the track would generally be the most time-consuming mode of transport of the three. Appropriate stopping locations and days of travel were assessed to determine the most practical locations for overnight accommodation or pick up locations.
- Employment opportunities – Further consideration was given to connectivity and exposure in light of employment opportunities both for construction completion and post construction in the form of maintenance and economic development within such communities.

A high-level costing exercise followed this revision with indicative costings assigned to track construction, maintenance, health & safety, procurement, and consenting/management elements. The costings and preliminary track design were put forward and compiled into a business case which was presented to central government in mid-2021.

3 The Final Proposal

3.1 Overview

Due to unforeseen circumstances, the progression of the project was paused following the presentation to central government in the middle of 2021. The Covid 19 pandemic fell at a time which meant the progression of the project would be minimal over the next 15 months. Through the other side of the pandemic and into November of 2022, HRM associates re-engaged CPS to look forward to further progressing the project towards a resource consent submission on the 30th of June 2023.

The initial proposal had been conducted at a high level to provide a “line of best fit” on a map for both discussion and indicative costing purposes. The final proposal involved a series of four detailed reviews with input from the project team, consultants: each being experts in their fields, and third parties with a vested interest in the project. Sections 3.2-3.5 below will outline the four stages of review in detail with considerations and key iterations outlined for each.

3.2 Stage 1 Review – Pre-Consent Application

Following re-engagement, the trail was revisited by CPS. The objective and direction of the project remained consistent in that the aim of restoring connectivity and providing economic, social, and cultural exposure/awareness to the remote

communities along the East Coast. The initial discussion following re-engagement firmly pressed towards a resource consent submission for the project on the 30th of June 2023. A tight timeframe but one which would ensure accountability within the project team and ensure clarity of process towards this submission.

The last iteration of the track was over 15 months prior and with the terrain, roading network and local communities undergoing varying levels of change during this period, an updated version of the track would be required to reflect the 2022 environment. As this project would now look to transition into detailed design, the pre-consent application and consultant engagement iteration would be crucial for setting expectations and ensuring a clear direction visible to all.

The key focus of this iteration of the design review was to ensure serviceability and practicality for all three modes of transport taking the new 2022/2023 environment and climate into consideration. The passing of 15 months allowed visibility of further roading network development as well as the impact of weather events. Local knowledge was again called upon in this iteration to recall any vulnerable sites where the route may require reconsideration.

The track was edited in detail with careful consideration given to the practicality of each mode of transport having appropriate access along with appropriate grades and terrain types. Alternative routes were provided as required and a focus was moved away from minimising public land parcels and towards route practicality with cost-benefit analyses run at each of these key points.

3.3 Stage 2 Review – Post Consultant Engagement

In early 2023, the Te Ara Tipuna project team was formed consisting of the following individuals:

Name	Role	Company Representing
Hekia Parata	Project Founder and Champion	HRM Associates
Mihimaraea Parata Gardiner	Project Lead	TPK
Diana Bell	Resource Consent Lead	The Planning Collective
Vic Murphy	Resource Consent Team	Civil Project Solutions
Zac Borrie	Trailway Designer	Civil Project Solutions

Following the first of the four final iterations and the forming of the above project team, the approach towards acquiring consent for the project was formulated. Initially, it was intended to look down the avenue of fast-track consenting via the Covid-19 fast-track scheme which The Planning Collective had successfully utilised on other projects to date. Following initial consultant engagement and subsequent internal discussions within the project team, it was decided that given the nature of the project and the target timelines, applying for three global consents to submit to the three regional and district councils would be the best approach.

Knowledge and experience within the project team were utilised to select the most appropriate wider project team of expert consultants to provide technical input and detailed reports for the resource consent submission. See below for the list of team leaders, consultancies and areas of expertise addressed:

Field	Company Representing	Team Leader
Coastal Hazards	4D Environmental	Bronwen Gibberd
Social Impact	Rau Tipu Rau Ora	Amohaere Houkamau
Cultural Impact	Pahou & Associated Ltd	Ngarimu Parata
Ngati Porou	Ngati Porou Chairperson	Selwyn Parata
Traffic Safety & Impact	Tairawhiti Contractors/Urban Connection	Kat Kaiwai/Steve James
Archaeological/Historic Heritage	Insitu Heritage Ltd	Lynda Walker
Landscape & Visual	Isthmus	Lisa Rimmer
Geotechnical	Initia Geotechnical Specialists	Andy Pomfret
Recreation	Sport Gisborne Tairawhiti	Helayna Ruifrok/Iti Kahurangi Takura
Ecology	Tairawhiti Environment Centre	Greame Sutherland
Ecology (Post Lodgement)	Viridis Environmental Consultants	Mark Delaney
Walking Access Commission	Herenga a Nuku O Aotearoa	Mary Anne Baker

Once the wider project team was confirmed, an initial briefing letter was distributed which included the proposed route, the wellbeing cost-benefit analysis, the CPS scoping report, and the Te Ara Tipuna proposal document. An initial team workshop was held on the 24th of January which was used as a formal introduction to the project and for an open discussion on general track considerations. Project progress to date was outlined and areas where work needed to be done were highlighted. Key items that were raised and addressed were:

- Coastal erosion and particularly vulnerable areas. How this will be managed and whether access will be possible during all tides.
- How we can create positive visual effects and incorporate kaitiakitanga specific to each whanau and hapu.
- Geotechnically sensitive areas in particular landslip-prone sites.
- Awareness of archaeological sites and the procedure of working with these sites.
- Community consultation to be widely dispersed and expectations to be managed around the level of service provided by the track.
- Difficulty of the trail and how this ties into the volume and types of users of the trail.
- Exposure to culturally significant sites to help reinforce/relearn the history of the land.
- Identification and avoidance of ecologically sensitive habitats.
- Traffic safety and considerations for where the track may utilise the road corridor or where it may need to be shifted due to a lack of safety/control.

Following this detailed discussion, the track was amended further with these considerations kept at the forefront of the trail mapping. It was noted that a series of site visits would likely be required to further assess some remote areas of interest providing some of the consultants with further assurance of their recommendations. These site visits were scheduled for mid-February. In the interim, the consultants were asked to identify the hotspot locations relative to their field of expertise along the trail. These hotspots would then be utilised to assess where the trail could remain, and the effects managed or locations where the trail would need to be shifted.

3.4 Stage 3 Review – Post Cyclone

In February of 2023, the North Island of New Zealand was hit by Cyclone Gabrielle which caused widespread devastation and extensive damage to parts of the East Coast of the North Island. Tairawhiti around to Tokomarau Bay in particular was hit extremely hard with the main SH35 roading network being one of the worst hit locations. With power, water, and fibre down in the wider Tairawhiti region for several days, restoring the community to a form of normality became the key focus as we underwent the slow rebuild.

This event meant that the previously scheduled second team workshop and the subsequent site visits had to be postponed. The second team workshop was rescheduled for the 15th of March with the key objective to identify the hotspots as perceived by each consultant. Detailed analysis of the trail was conducted by each, and significant hotspot locations were identified for initial comment by the project team. These effect identifications provided by each consultant were collated to form a list of areas requiring further consideration and potential trail relocation and areas where more information was required to complete the assessments.

It was apparent that the most pressing requirement following the cyclone was a full site visit for the geotechnical engineer and the trail designer. Initia and CPS completed a two-day full drive over of the Te Ara Tipuna trail assessing the condition of the proposed route and roading network. Where access to certain areas was restricted, the drone was utilised to capture geostamped images which were assessed in the office to determine practicality of traversing certain areas. Alternative routes were looked at as required and careful note was made on the condition of the state highway. Several key observations were made following this drive over:

- The terrain from Gisborne to Tologa Bay has particularly sensitive geology and is very slip prone. Meticulous monitoring will likely be required during construction.
- The roading network from Tokomarau Bay to Ruatoria has a lack of resilience and was hit particularly severely by cyclone Gabrielle. Any portion of the trail that follows the state highway through this section will need to follow an alternative route. It was proposed following this that a quad bike accessible track would be the best solution.

- Several locations from Waihau Bay to Opotiki where the track utilised the road corridor were reviewed in more depth and were deemed too dangerous. These locations were noted with alternative routes looked at.

This exercise proved very important and timely, providing the project team with insight into both the condition of the roading network and the proposed trail route. The hotspots identified in the second team workshop combined with the drive over observations were all taken into consideration with a third revision review of the track completed.

3.5 Stage 4 Review – Final Iteration & Detailed Commentary

Now progressing through to the initial phase of detailed design for consent, the level of analysis of each section of the route required close observation to make note of the following aspects:

- All major and minor structures.
- Locations of road crossings.
- Notes on steep track locations and assessment of realignment.
- Notation of shoulder utilisation and assessment of narrow corridors.
- Specification around beach transition
- Review and relocation of toilets/shelters from within the coastal environment.
- Identification of low volume road corridors which could be used for the trail.
- Assessment of dangerous intersections and how these will be managed.
- Review of watercourse crossing locations (both small gullies and larger river mouths).
- Identification of wetlands and reroutes.
- Identification of general high-risk areas – including the assessment that days 22-24 would be too unsafe to traverse. A taxi system was proposed and will be implemented.
- General notes to be considered during construction.

Alongside this process, a series of 16 track cross-sections were developed to assist with the finalisation of the consultant reports and identify the different treatments which may be required for various locations of the track. These cross-sections looked to provide a simplistic overview of the minimum expectation. Where possible track widths will be varied to suit the terrain to provide a corridor of sufficient width for all three users when the trail is shared (4.5m). Where physical constraints do not permit such width, the widest possible option will be adopted, and the appropriately selected treatment will be utilised.

Detailed construction methodology will be outlined in the construction management plan with specific reference to each of the track cross sections. The final review of the trail was wrapped up with a series of pins which provided a brief commentary on construction notes, onsite observations and points of note which could be translated through for onsite construction.

Upon receipt of all finalised consultant reports, a final review and adjustment was made to the entire track taking all considerations and feedback into account. This thorough exercise would then form the 7th full iteration of the track encompassing all feedback and recommendations provided to date.

3.6 Stage 5 Review – s92 Response

Once the resource consent was submitted there was a series of correspondence which would follow prior to the formal acceptance of the application. The level of detail provided was questioned with further explanation for the approach and methodology requested by the processing planner. Once the application was formally accepted a s92 request was received with emphasis placed on the accuracy of the trail alignment on the Google Earth overlay. There was concern around the level of accuracy of the trail alignment particularly where it partially encroached on residential boundaries. The project team completed extensive work outlining the affected landowners and land parcels. Council was opposed to using this data set and using it to verify in the event that there was variance relative to what was on their system. Subsequently, the BOP regional council provided the TAT project team with their GIS mapping system to overlay the google earth track onto.

The track was reviewed in a great level of detail with each point adjusted to provide a high level of accuracy for the best approximation of where the track would traverse. This process was completed very thoroughly to ensure no points on the

track traversed across land which was not intended to be affected. During this process, there were several mapping layers which were provided by the council which were not publicly available. One of the more crucial layers was the wetland overlay. This used historical in field survey data completed by members of the council and outlined where wetlands had been identified. This information was utilsied to shift the track as required or identify areas where consents may need to be sought.

3.7 Stage 6 Review – Final Submission

During the process of post lodgement correspondence with the respective councils and the stage 5 review of the design, the project team continued to face challenges in stopping the consent from stagnating. With the main objective of achieving an approved resource consent, the focus needed to shift in order to continue forwards momentum. A staged approach was seen as the best way forward with two initial options proposed:

1. Stage the consent to apply for specific sections at one time with a more detailed design provided up front.
2. Stage the consent to apply for pedestrian access only. Cyclist and horse access would be assessed during the pedestrian detailed design.

To best align with the desired objectives and outcomes for the project, option 2 was seen as the best way forward. The following supporting points were put forward to the wider project team for consideration:

1. Less planning considerations and triggers.
2. Reduction to the required budget.
3. Less invasive works required and less vegetation removal. Overall lower environmental impact.
4. Greater flexibility with track gradients.
5. Ability to introduce steps where the gradient is steeper.
6. Elimination of any potential multiuser safety risks.
7. Removal of non-complying activity status in BOP region.
8. Upfront assessment for feasibility for future use.
9. Decreased track maintenance costs.

Following internal approval, the track was updated for the final time to provide for pedestrians only. During the detailed design phase for the pedestrian route (post RC approval), in field survey will determine areas of feasibility for the multiuse.

4 Closing Comments

Over the duration of a 42-month period, 9 iterations of the trail were completed following feedback from the project team, specialist consultants, third parties and individuals with extensive local knowledge. The finalised route is one which has taken the route seen to be the most practical and appropriate at the time of mapping. It should be noted that adjustments will be made during construction as the detailed design process progresses.

Appendix 7:

Construction Management Plan

CPS
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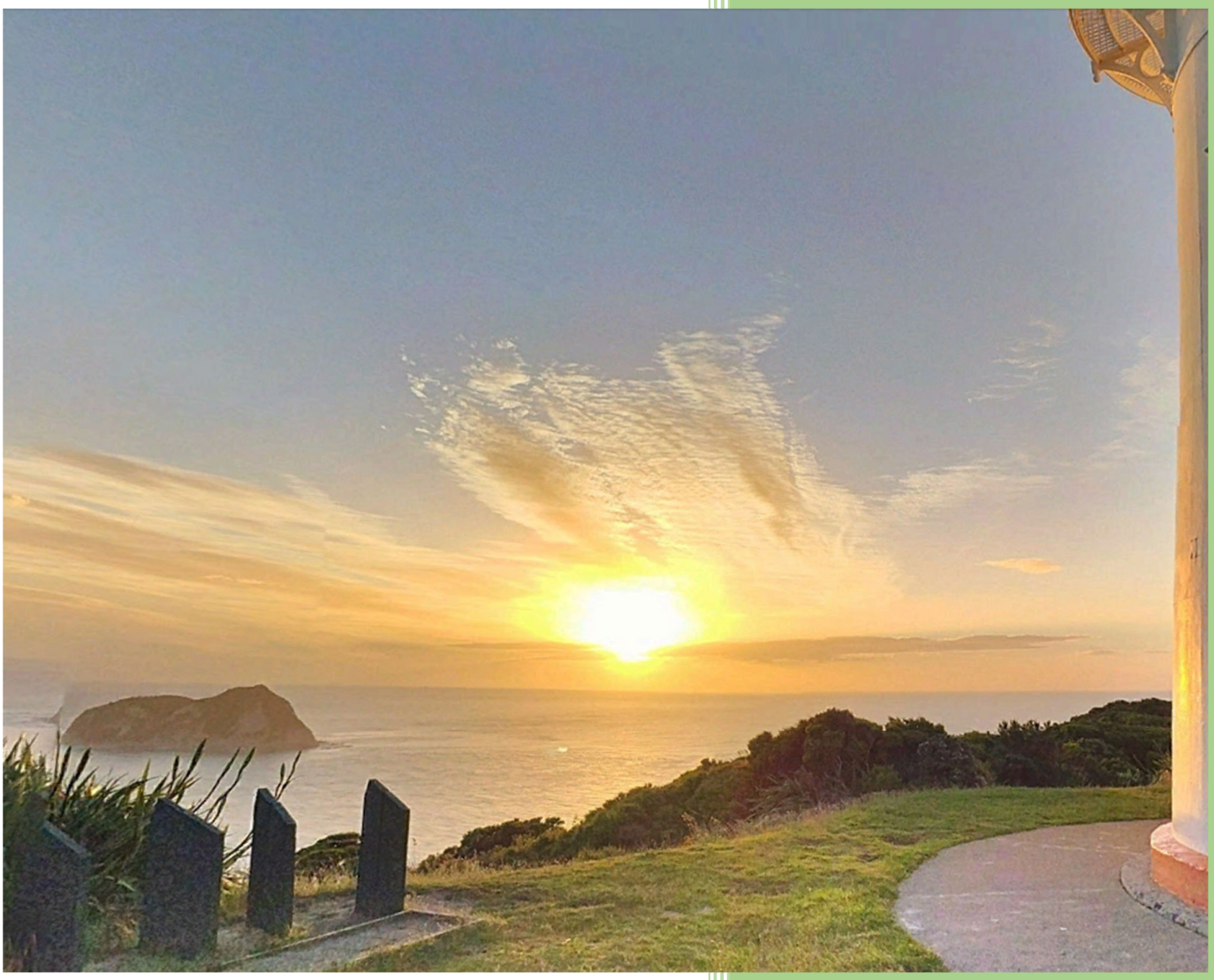
2024

Te Ara Tipuna Trailway



Zac Borrie
Civil Project Solutions
9/17/2024

Table of Contents

1 Introduction

This trailway is designed to enrich the cultural, social, and economic status of the east coast while providing incentive for activity upon completion and employment during and after construction. From the Rohe of Ngāti Porou and Te Whanau-a-Apanui encompassed by Gisborne and Opotiki this proposed 500km trailway hopes to carve a path for future generations.

The following report will cover:

- General design considerations for all civil works.
- Methodology for construction of the trailway with reference to specific cross section treatments proposed.
- Management of sensitive environments.
- Construction requiring specific design & consent.
- General environmental management.
- Health & Safety management.

2 Background

2.1 The Site

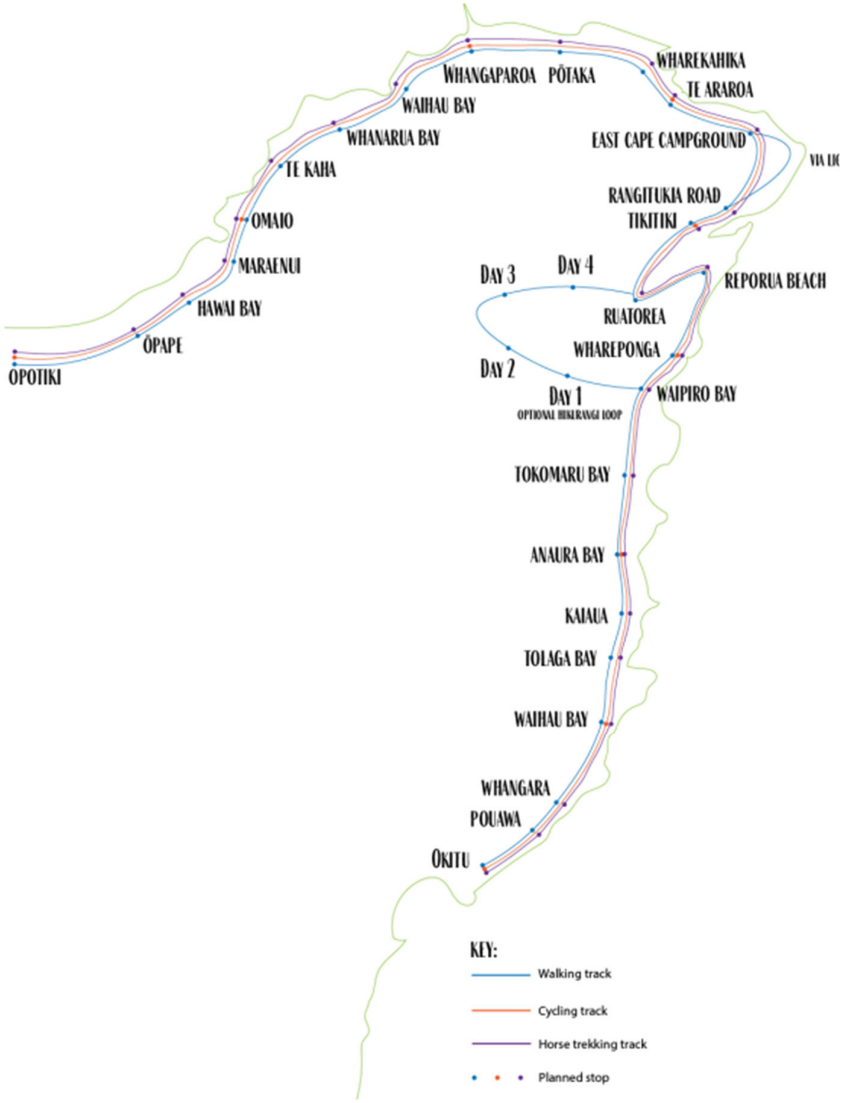


Figure 1: Te Ara Tipuna overview map (provided by Sport Gisborne Tairawhiti).

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Second, Te Ara Tipuna is intended to restore connectivity and momentum in the daily life of those who live and work in-rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday kaitiaki of the ara and the people who traverse them, locals and manuhiri alike.

Third, Te Ara Tipuna, is the overall description of the proposed network of ara/accessways, connecting existing tracks, old and new, reviving unused trails, defunct paper roads, and encroachments, along with new mapping to create a continuous journey from one end of Te Tairawhiti to the other, through Ngati Porou and Te Whanau-a-Apanui.

Fourth, Te Ara Tipuna, provides the opportunity for a distinct tourism experience in the heart of Te Tairawhiti, on foot, cycle and horse trekking. It opens a part of Aotearoa New Zealand where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai, and people who know how to hunt, dive, fish, cook, haka, sing, tell long stories, sly jokes, and deliver fast and furious one-liners.

Fifth, Te Ara Tipuna can offer a warm welcome and unique manaaki experience – iwi to kiwi - to fellow New Zealanders to walk into a marae, prepare kai in the kauta, eat and wash dishes, yarn by the fire, sleep in the wharenui, and head off into the day and to the next equally proud hapu along the ara.

This Proposal focuses on the foundation layer of infrastructure to create and support the ara/accessways, that together make up Te Ara Tipuna network; and, subsequently to support the wider kaupapa.

2.2 Construction Activity

The following activity summary does not include any quantities/volumes for civil construction works. The table below outlines the various civil components which will be involved in the trailway construction along with construction considerations and best practices to ensure work is carried out in a safe manner with an environmental focus.

Feature	Summary Design Information
Earthworks	Earthworks will be kept to a minimum where possible. More extensive earthworks will be required where a compacted aggregate trail, lime stabilised trail, boardwalk or alternative formed surface will be installed. Removal of topsoil and some subgrade (if required) will be completed prior to backfilling and compacting with the selected clean engineered fill material. Large cuts of 1.5m or more and retaining structures will be avoided where possible with the natural contours of the land followed. The landscape architect, ecologist

	and geotechnical engineer will need to be consulted to determine natural regeneration capability and track resilience suitability. All earthworks will be conducted in a manner which takes into consideration, dust, sediment, and erosion controls. Excavated material will be kept onsite and utilised for landscaping or lost within the contours of the land where possible. Any material that needs to be taken offsite will be transported to an appropriate facility for disposal. Material will be assessed under the NESCS if required.
Stormwater	The track will maintain a level of cross fall that will allow stormwater flow across the track and towards the nearest drainage channel. During construction, the natural drainage channels will be preserved with any introduced structures allowing flow paths for water to continue to flow at pre-development levels. No existing stormwater flows will be restricted. Where culverts or drainage facilitating structures are introduced, these will be designed for a 1:100-year AEP event based on the NIWA Hirds 2081-2100 RCP8.5 predicted rainfall probability data. Culverts will be avoided underneath structures that traverse water courses.
Wastewater	All toilets installed are proposed to be compostable. The units are fully contained and do not produce any liquid/solid discharge to the surrounding environment. The location of these toilets shall be such that they are not within any culturally sensitive areas or areas in close proximity to drainage channels or watercourses. Where possible existing infrastructure will be utilised. These toilets shall be installed with consideration for servicing requirements. It is intended that servicing will be completed via small portable units where possible if vehicle access is not possible. Wastewater generated from hut basins/sinks will be appropriately disposed of in septic fields following local authority guidelines.
Water Supply	Water supply to huts and for any washing facilities will be supplied from onsite storage tanks in remote locations. Mains supply will be utilised where this is accessible.
Roading & Concrete Work	Concrete structures will only be installed where necessary with separate consents sought for these following any required detailed design. Any work within the state highway road corridor will be carried out as per NZTA guidelines with any work on local roads conducted as per the Local Authority requirements. Structural design and geotechnical input will be required for significant structures such as bridges.
Utilities	Power and fibre will be seldom required for any permanent structures on the track. Toilets proposed to be compostable, shelters will be kept to a timber standalone covered structure only, and any huts will look to utilise solar power.

Building Finished Floor Levels	Floor levels for any structures will be set to ensure water does not enter during a 1% AEP (Annual Exceedance Probability) event within the Coastal Environment or a 2% AEP event for areas outside the Coastal Environment. Council will determine the appropriate freeboard that needs to be added to the flood level to set the required minimum floor level. A building consent will be sought for each building structure prior to implementation where finished floor levels will be appropriately determined as above.

3 Construction Methodology

3.1 Overview

In aiming to keep with the natural environment and provide an immersive experience for users, approximately 90% (high level estimate) of the track is proposed to remain relatively untouched with the track composition to emulate that of a farm track. Where assessed as an appropriate location for providing a higher level of service, additional work will be conducted to construct a path comprised of aggregate, timber, or a widened and improved berm/road shoulder surface. It may also be practical in some areas to provide a concrete surface.

Section 3 below will provide a more detailed overview of the methodology for construction of each specified cross section (Appendix 1). General construction considerations will also be discussed in section 4 outlining best practice management for controlling and mitigating any adverse effects which may be presented to the contractor during physical works.

The Viridis ecological report should be read and referenced in conjunction with this CMP.

3.2 Typical Trail Cross Sections

3.1.1.1 Typical Trail Cross section 1

Typical cross section 1 shows the proposed raised boardwalk trail. This involves stripping away necessary vegetation and topsoil to allow construction of a raised wooden boardwalk that accommodates walkers. A lime stabilised track may run adjacent to this. Refer to note in 3.2.1.2.

The raised wooden boardwalk will have a series of augured holes typically 450mm in diameter ranging between 300-900mm below ground level. Any excavated topsoil and subgrade will be retained onsite where possible and used to landscape/re-establish any disturbed ground. If any ground water is encountered this will be dewatered to the nearest drainage channel prior to any concrete being poured. Prior to pouring any concrete, the piles should be inspected, and the shear strength tested as per geotechnical recommendations.

Should concrete trucks be required for pouring, access should be made as safe as possible with the appropriate traffic management in place. Any concrete spoil should be removed from site following completion of the work. Service locates should be completed prior to carrying out work which involves excavation greater than topsoil depth.

The lime stabilised track shall be constructed by first removing the vegetation and stripping the topsoil down to the subgrade. If required, the subgrade should be shaped appropriately to match existing contours and to suit natural stormwater flow paths. The wooden edging should then be installed along the track edges prior to backfilling with clean 20-40mm aggregate. This should be appropriately compacted as per the geotechnical report recommendations.

Note: It should be noted that the stabilisation of the track may not be required. During construction, the construction methodology of the route for cross sections 1 & 2 may omit the inclusion of stabilisation. It is deemed that this will introduce a greater level of maintenance and cost over the path's lifespan. In this instance, the construction of the route will be followed as per 3.2.1.3 below.

3.1.1.2 Typical Trail Cross Section 2

Cross section 2 is similar to cross section 1 with the key difference being its construction flush with the ground. Spacing in the joists allows stormwater runoff. Due to the height difference in relation to the adjacent track running parallel there is also the addition of a separation post on the edge of the ground level trail at approximately 100m intervals.

Cross section 2 supports will be augured 450mm wide and vary in depth between 300-900mm below ground level. Excavated topsoil and subgrade will be reused where possible in the surrounding landscape or in re-establishment of the area, excess will be disposed of in approved landfill site. Placement/removal of concrete should be carried out as outlined in 3.2.1.1 above.

An approved traffic management plan shall be implemented with any required service locations complete prior to commencement. Construction of the lime stabilised track should follow the recommendations as set out in 3.2.1.1 above. Note: Stabilisation will only be completed if deemed required – confirm with geotechnical engineer prior to construction.

3.1.1.3 Typical Trail Cross Section 3

Cross section 3 is a simplification of the ground level trail utilised in 3.2.1.1 and 3.2.1.2 above, with the removal of the lime stabilisation. This will retain resilient character without the same degree of cost/difficulty in relation to maintenance.

Construction will involve initial vegetation clearance and topsoil stripping as per 3.2.1.1 & 3.2.1.2 above. Due to the increased track width, care should be taken to avoid over excavation during adverse weather as this may lead to excessive ponding and softening of the subgrade. Wooden edging should be installed prior to the placement of 20-40mm aggregate. Consistent compaction should be targeted across the width of the track with care taken not to overuse the vibrating element of the compaction equipment as this may cause water to pump up from the subgrade into this base course layer ruining the integrity.

Softer areas or any unforeseen discoveries should be noted to the geotechnical engineer. Cross fall of 2-3% minimum should aim to be achieved to ensure no ponding occurs on the track.

Care should be taken to avoid spoil entering the water course with erosion and sediment protection installed as required when working in close proximity to waterbodies.

3.1.1.4 Typical Trail Cross Section 4 & 5

Standard track 1 and 2 will be interchangeable being constructed based on the type of terrain. In areas where growth is significant (use cross section 5) the overgrown grass/vegetation will be removed and cut back to a similar length to that of a mown track. Due to this then being distinguishable from the surrounding environment it can be maintained at this length with no further need for grass removal down to the topsoil. Areas of the track which traverse farmland with grass coverage maintained by stock may require grass removal to delineate the track (if the landowner requires this) – utilising cross section 4. Following grass removal, the topsoil should be proof rolled/compacted to ensure it is firm. This may also need to be shaped to achieve the required cross fall

and facilitate stormwater runoff. Way finding/segregation markers will be installed at appropriate intervals (100m used as reference – will be less frequent). The existing ground either side will then be tied into edge of track to allow stormwater runoff to match the surrounding area.

3.1.1.5 Typical Trail Cross Section 6

Cross section 6 denotes construction recommendations for when the grade is greater than 15%. To provide track resilience and traction, an aggregate based track will be installed.

Vegetation clearance and topsoil removal to be carried out as outlined in the above sections. Prior to placement of the AP20-40mm aggregate, the subgrade should be compacted and inspected for soft spots. Upon placing the aggregate, it should be spread and compacted to a minimum depth of 75mm. 3-4% cross fall should be achieved. The finished level of the track should not be significantly lower than the surrounding ground as this would promote pooling on the track. Compaction recommendations and stability analysis should be followed as recommended by the geotechnical engineer.

3.1.1.6 Typical Trail Cross Section 7

Cross section 7 represents scenarios where the track is required to run along the road shoulder adjacent to a state highway. Active traffic management will be required for sections using this typical design, traffic management will be approved and in place prior to commencement. A corridor access request will also be required.

Construction is as follows, 0.5m separation from live lane shall be measured and a fluorescent flexible visibility bollard shall be installed. Bollard separation will be site specific, and guidance will be provided by NZTA. Existing loose gravel shall be compacted, and topsoil stripped, if necessary additional gravel may be carted in when required to make a lane of at least 1m width. If existing drains cannot be kept in suitable condition or extra space is needed for the trail, an extension into the drain or revetment may need to be constructed.

3.1.1.7 Typical Trail Cross Section 8

Cross section 8 is to be utilised where there is enough of a road shoulder/berm to accommodate multiple lanes adjacent to a highway. Traffic management requirements will be similar to cross section 7.

Construction follows similar methodology to cross section 7. 0.5m will be established from the line marking and flexible, fluorescent bollard installed. Existing gravel will be compacted, and topsoil/ scrap material removed. Additional gravel may need to be carted in to widen for multiuse as required. The existing ground will be reshaped if required and compacted to make the surface suitable for user access. Fall towards the open drain must be achieved.

3.1.1.8 Typical Trail Cross Section 9

Cross section 9 is proposed for where existing infrastructure is in place adjacent to the state highway corridor. The existing footpath and grassed berm should be inspected to ensure they are suitable for both pedestrian & horse access. Cyclists are to utilise the cycling lane if this is present. If the width of the footpath permits, cyclists may utilise this corridor. NZTA should be consulted for discussions around reduced speed limits if there are not already in place. Note: This cross section will be pedestrian only until detailed design is completed and feasibility for future users is assessed.

3.1.1.9 Typical Trail Cross Section 10

Cross section 10 is to be utilised on low volume roads where there is scope for vegetation clearance to form a single lane walkway for pedestrians. Both sides of the road corridor should be assessed to determine which is most suitable taking into account drainage channel and flow path disturbance.

Following road shoulder selection, vegetation and grass cover should be removed, stockpiled, and then disposed as required (as per best practice and following the procedures outlined in sections above). The subgrade should be shaped to provide cross fall towards the drainage channel. A width of 1.2-1.5m should aim to be achieved.

3.1.1.10 Typical Trail Cross Section 11

Cross section 11 is to be utilised when low volume roads are present and existing shoulders do not permit enough width for the trail. The road shoulder/berm with the greatest width should be selected and users will be permitted to utilise the lane on this side of the corridor.

Excavation should be minimal where there is no excessive vegetation cover. The selected roadside shoulder should be widened as much as possible with turn off areas provided for users to move off the road when oncoming traffic is passing. This widening shall be carried out by shaping the subgrade and utilising fill from any cuts to backfill lower areas. Where required, clean aggregate may need to be imported for the turn off areas.

Signage will be very important through areas where cross section 11 is implemented. This should be approved by the Local Authority and traffic engineer. Traffic will need to be made aware of the shared use with possible speed limit reductions discussed with the Local Authority.

3.1.1.11 Typical Trail Cross Section 12

Cross section 12 shows existing local roads fit for purpose for servicing a potential multiuse trail. Pedestrians and will utilise the widest roadside berm. Initial inspection is required to determine whether the roadside berm has a minimum width of 2m. Ideally 3m should be achieved.

Vegetation will be removed and disposed of offsite. The subgrade should be shaped to enable cross fall to the drainage channel.

3.1.1.12 Typical Trail Cross Section 13

Cross section 13 reflects locations where the track will traverse through dense vegetation and a path is required to be cleared. The expected vegetation is larger mature trees. Arborists may be required in developed areas. Prior to works beginning, the ecologist and landscape architect should be consulted to identify possible species which are to remain (where possible), and which are to be replanted if they are removed.

Construction will involve the trimming and removal of trees followed by the excavation of extensive root systems. Where the roots do not impede on the integrity or quality of the track they should be retained. If they will cause any risk to the users, they should be excavated and removed. The subgrade should be reshaped and backfilled with onsite material where roots have been removed. The backfilled material should then be recompacted ensuring drainage channels are maintained.

Way finding points through this section will vary in frequency with their type guided by the Landscape Management Plan completed by Isthmus.

3.1.1.13 Typical Trail Cross Section 14

Typical cross section 14 is a cycle only trail through rural hillside. Trail width should aim to be 1.5m wide with a recommended 3% crossfall. This cross section will be installed as required following detailed design of the pedestrian route. Way finder posts are to be installed at an appropriate frequency and only as required.

Vegetation will be cleared and disposed of offsite. Grass coverage may be stripped (if required by the landowner), and the subgrade shaped to form a suitably firm track. Any grass/soil removed should be used for landscaping onsite ensuring drainage channels are not impeded. The existing ground should then be compacted to ensure a firm base for use.

3.1.1.14 Typical Trail Cross Section 15

Cross section 15 is a resilient route proposed for ATV access between Tokomarau Bay and Ruatoria. This section of the route has proven to be particularly vulnerable with SH35 experiencing extensive damage in recent weather events. The cross section depicts the maximum corroder width aimed to be achieved. However, it should be noted that in the instance where the land does not permit this width, at a minimum the 3m wide gravel track (stabilisation subject to onsite assessment) will be installed.

Construction of the gravel track should follow the methodology outlined in cross section 3. The ATV track will utilise AP40 aggregate and meet a minimum depth of 150mm. Stabilisation will be subject to onsite conditions and will only be completed if deemed appropriate. If stabilisation does not proceed, compaction standards will need to be met as recommended by the geotechnical engineer. The geotechnical engineer will be consulted during this construction decision making.

Removable bollards will be installed at key points along this route to deter unwanted ATV/vehicle access.

3.1.1.15 Typical Trail Cross Section 16

Typical cross section 16 covers any sections of the trail which may cross an unformed road (paper road) or formed trails within private property. The existing aggregate track should be inspected to determine suitability and whether any upgrades are required. If a width of 3m is achieved, then this can be used to service walkers and other potential future modes. Additional metal should be applied as required (if within private property, the owner should be consulted prior to works commencing).

Where the existing aggregate track does not meet a width of 4.5m and the landscape permits a trail of up to 4.5m wide, vegetation and topsoil should be removed to allow for a 4.5m wide trail. The subgrade should be shaped and compacted. Drainage channels should be preserved.

3.1.1.16 Typical Pedestrian Crossing 1 & 2

There will be numerous locations where road crossings are required along the route. Safety and signage will be two of the most important aspects of this work with clear communication of expectations required between the project team and the local authority/NZTA. Cross sections 1 & 2 represent two indicative scenarios where users may be required to cross either local roads or state highway. It should be noted that detailed design will need to be signed off by Urban Connections, the relevant Local Authority and/or NZTA.

A second viable option proposed for bridge crossings and which could be used in place of some clip on bridges is the bridge crossing concept provided in Appendix 6.2. This has been physically implemented on Blackbridge Road along Dairy Flat Highway in Auckland. This concept utilises a series of static and illuminated signs to warn traffic of active users on or very near the bridge. 300m from the bridge there is a SLOW DOWN sign used to warn traffic of the need to reduce their speed. This may be accompanied by a speed restriction sign if deemed necessary and approved by the roading authority. 200m from the bridge there will be two solar panels both of

which will supply power to the illuminated sign which will light up when activated by the user. 100m from the bridge there will be a pole which will have buttons for each user to press to activate the illuminated sign 200m from the bridge. Once activated motorists will be instructed that there is an active mode near or on the bridge.

It is expected that detailed design and safety assessment will need to be completed prior to implementing this system.

Note that all cross sections provided in the appendices are indicative only.

As the trail approaches the road corridor, signage will be put in place warning users of the upcoming road crossing. Way finding markers will be installed to direct users towards the point of crossing. Where deemed necessary on higher risk roads, speed bumps can be installed near the road shoulder to slow users down. Relevant line marking shall be installed following detailed design and approval.

3.1.1.17 Concrete Landing

Where required there may be scope to install a concrete landing or strip in select areas. These areas may be appropriate as follows:

1. Transition from a boardwalk to a stabilised AP20 surface.
2. Transition from a road crossing to a way finding or aggregate track.
3. Along the road shoulder where the track is steep or narrow.

Construction will first require stripping of topsoil (and subgrade) and replacement with a minimum of 100mm AP40 as the basecourse. The concrete footpath should then be boxed and poured to a minimum depth of 75mm. Reinforcing/fibre content can be confirmed at detailed design. Adequate cross fall and channel drainage should be provided to ensure water does not pool on the path. Due to this scope being site specific no cross section has been provided.

4 Construction Considerations

4.1 Erosion & Silt Control Measures

Silt control measures will be built in general accordance with the conditions of the resource consent(s). Installation and construction of silt measures are to be completed prior to any significant excavation works commencing.

The basic priority of sediment control is to keep clean water from entering areas of open ground and control sediment laden water prior to it exiting the site.

This will be completed throughout the course of the project with the following actions:

- Maintaining silt fences. Replacing any which are damaged.
- Constructing contour drains/drainage channels as necessary.
- Construct diversion bunds as necessary
- Topsoil and grass seed finished areas immediately following final contouring.
- Constantly monitor all erosion and sediment control systems with regard to the site works being conducted.

General silt controls should include but not be limited to the following:

- Silt fencing
- Dirty water diversion bunds
- Clean water diversion bunds
- Grass clearways for stormwater filtration

Erosion control should include but not be limited to:

- Riprap protection.
- Installation of flumes to avoid scouring where culverts are installed.
- Retaining structures to be installed only as required.

As works progress it may be necessary to adapt the sediment control plan to suit on site conditions. Following the stripping of topsoil and start of fill importing, the sediment and control measures will be checked to ensure they are sufficient. Additional measures will be put in place if required with the following document used as guide:

Erosion and Sediment Control Guidelines for Land Disturbing Activities – June 2010

4.2 Structures

Structures used as a part of the trail will require specifically engineered designs depending on the section of the trail they are located on. Structures will include bridges, clip on bridges, retaining walls, shelters, huts and approaches to any structures scattered throughout the trail that will require new track types outside of the typical cross sections included in this document. Please refer to Appendix 6.1 for indicative cross sections. Appropriate finished floor levels will be determined at the detailed design phase.

It should be noted that an alternative option to clip on bridges may also be sought. This has been included in Appendix 6.2.

4.3 Topsoil Removal & General Soil Disturbance

The proposed route will aim to reduce the amount of land disturbance by following natural contours. Should there be a change to the alignment of the route and alteration to the extent of earthworks, the project manager should be notified so this can be checked with the issued resource consents. If required, additional consents will be applied for.

Topsoil removed will be stored onsite and used for landscaping within that land parcel where required. Topsoil required to be removed will be stockpiled temporarily away from any water courses and the road corridor. Dust, erosion, and dispersal of this stockpile will be monitored and controlled until its removal. Any potential dust hazards presented by open excavations will be monitored throughout the project.

An assessment of Archaeological effects has been completed for the track's current location, which shall avoid those identified sites. Should any land disturbance accidentally uncover any unidentified archaeological sites, all works shall cease, and the Accidental Discovery Protocols will be followed. This includes contacting the project manager who will work with the project Archaeologist to ensure that all protocols under the Heritage New Zealand Pouhere Taonga Act 2014 are adhered to.

4.4 Vegetation Removal

4.4.1 Removal Considerations

During the consenting phase, in-depth desktop analyses were undertaken to determine locations where the route passed through protected management areas (PMA's). In addition to those, the ecologist identified areas with high ecological values which were not included in these PMA's. The track was realigned to avoid or minimise vegetation removal in those areas with consents being sought for vegetation removal in the PMA's. For those areas outside of the PMA's, if the track's location requires vegetation removal of indigenous vegetation that will not meet the permitted rules, in the first instance, the track will be rerouted to avoid the area. If not possible, there will be input from the ecologist as well as requirement for relevant consents from the Consenting Authority.
Post consent submission, a second ecologist Viridis was engaged to complete a comprehensive desktop analysis and management plan for the project. This report was very detailed and has provided a clear set of recommendations and pathways forward for pre-construction and during construction monitoring. The report will be submitted with the amended application.

During vegetation clearance care should be taken to preserve exotic and indigenous species where possible. In field surveys may be conducted by the ecologist or members of the project team. If these are required to be removed, an attempt should be made to replant these adjacent to the track. Should vegetation need to be stored onsite prior to offsite disposal, it should be stockpiled away from the road corridor and any water courses/drainage channels. If stockpiles are to be left exposed and unattended for more than 24-hours or prior to predicted heavy rain, they should be located in a manner that will avoid the risk of the material being mobilised in stormwater flow paths.
Where vegetation clearance is in close proximity to dwellings, arborists may be required to ensure this clearance does not pose any risk to residents or their assets. Close approach permits are to be applied for as necessary when working beneath any overhead lines or when excavating near live underground services.

There are stringent requirements for disturbance of Pohutukawa trees in the BOP regional coastal environmental plan. Due to the location of the track being predominantly in the road corridor in the BOP region, Pohutukawa disturbance can likely not be avoided. This will be minimised where possible with the required consents sought.

4.4.2 Vegetation Re-use

Where significant exotic and indigenous species are required to be removed, replanting these in an appropriate location should be the priority if their condition permits. In areas where landscaping is proposed, if the removed vegetation is suitable for mulching, it may be chipped and used as mulch for these new plants. Any timber suitable and in a practical location for reuse as firewood will be made available to local residents/iwi. Access requirements for obtaining this timber will need to be well managed prior to this being made available. The most suitable option would be to cut and relocate this timber in a public collection area with safe access.

4.5 Construction Adjacent to Streambeds, Rivers & Coastal Environments

Construction near streambeds, rivers and coastal environments will be minimised where possible. No work is intended to occur within the watercourse – the exception may be installation of bridge piles. If required to complete work adjacent to these environments, construction methodology will meet all permitted standards and follow best practice guidelines for working within these areas. This includes putting appropriate sediment and runoff controls in place prior to construction, and regular monitoring of the measures to ensure they remain

effective, particularly after heavy rain events. Rehabilitation of the sites will also occur to prevent erosion and sediment generation once construction has been completed.

4.6 Commonly used Plant & Machinery

List of commonly used equipment for this job will be as follows:

- Excavators
- Graders
- Trucks – Including concrete trucks, tip trucks and general cartage vehicles.
- Loaders
- Rollers – Including smaller compaction equipment (plate compactors etc).
- Tractors
- Small generators
- Geotechnical testing/investigation equipment
- Woodchippers & other miscellaneous arborist equipment

Prestart checks on all mechanical equipment are to be completed every morning prior to starting work. A Site-Specific Safety Plan (SSSP) will be required to be kept onsite and approved prior to establishment of any new worksites. All members on that site will require an induction and will be required to be wearing the appropriate PPE.

Prior to working within 20m of a water body, all machinery should be checked for any leaks. Any refuelling required should be carried out on a hard sealed surface (where practical) and must be further than 20m from a watercourse.

Work within areas identified as wetlands will be avoided. The track will be re-routed as required.

4.7 Noise & Vibration

Noise and vibration are both key elements which need to be managed for two key purposes:

1. To avoid noise and vibration levels which have an adverse effect on human health.
2. To ensure the acoustic environment is consistent with the character of the zone/area.

The location and nature of the work involved in constructing the trail means that the risk posed by noise and vibration generation is lower than other associated roading activities. A large portion of the track is located remotely, away from residential properties and environments occupied by humans. Additionally, the construction of 85% of the track is very minimalistic with the removal of grass coverage (subject to functional requirement and landowner requests) and light compaction of the ground typical (note as referenced in the Landscape and Visual Assessment), delineation of the track will be conducted via this methodology as required. Vibrations will generally be generated from cartage of material to site, tracking of diggers across the landscape, plate compaction and vegetation removal which involves uprooting deeply embedded plants. Noise and vibrations generated adjacent to residential zones and within zones with natural character sensitives shall be managed via the following procedures – Note: These procedures should be implemented in all zones as relevant:

- Work adjacent to residential zones and coastal environments will only occur between the hours of 7am and 6pm, Monday-Saturday. Sunday work upon approval.

- Noise associated with emergency warning devices should be exempt when working adjacent to residential and coastal environment zones.
- Cartage vehicles shall use the most appropriate route for access to the site maintaining a safe speed limit to avoid significant dust, noise and excessive vibration generation.
- A complaints register shall be kept onsite to record any complaints from residents or by passers. These complaints should be communicated to the project manager in the first instance.
- When not in operation for an extended period machinery should be switched off rather than left to idle.
- Daily pre-start checks, and end of week checks should be completed on all machinery to ensure they are running efficiently – this will help avoid any unnecessary noise and vibration.

Should any issues arise during construction, refer to section C11.2 of the TRMP for guidance.

4.8 Contingency Measures

Should the above monitoring reveal that there are significant changes occurring downstream of the earthworks site such as those listed above then a series of checks should commence to ensure that the sediment controls operating on site are doing so effectively. Checking should continue until the source of the problem is identified or it is established that it is occurring separate to the earthwork operations, e.g.: neighbouring site or external activity. If the problem has been identified on-site or is a result of the earthworks, then this is to be remedied immediately or at least prior to any further rain event and the next inspection.

4.9 Ongoing Maintenance

Maintenance post construction of the track will be required to keep the trail in a suitable condition. Maintenance contracts for the trail shall be issued to locals throughout the length of track. When the track traverses within the NZTA corridor, maintenance agreements will need to be set up via this roading authority to ensure their guidelines are followed.

The trail should be regularly monitored for:

- Potholes to be filled and compacted with material which matches the profile of that specific aspect of the trail.
- Overgrown vegetation will need to be cleared. Overgrown grass, bushes and trees will need cutting back as required to keep the trail clear of obstacles for users.
- Damaged signs/signposts are to be replaced or remediated as soon as possible to ensure user safety and notification along the trail is maintained.
- Damaged bollards are to be replaced in their entirety.
- Structures should be inspected regularly to ensure their integrity is maintained. Any defects should be noted, and the engineer should be notified.
- Following significant weather events, the track should be examined in its entirety for damage and a report filed to summarise findings. Note should be made on the condition of the drainage channels and spread of weeds/vegetation. Invasive and undesired species pose a risk to the exotic and native species.

4.10 Health & Safety

Health and safety risks will be assessed via weekly toolbox meetings. Discussions will include any concerns from the previous week and consider any new risks associated with the changing work environment or trail construction methodology. Assessed risks will be communicated to all workers involved on the worksite. Each individual will require an induction following establishment on site, they will be required to be familiar with the

Site-Specific Safety Plan. Each morning all workers onsite (and visitors) will sign onto the pre-start sheet with work for the day outlined in the toolbox meeting. Relevant documents required prior to establishment of works include:

- Traffic management plan (Local Authority approved).
- Site Specific Safety Plan
- Corridor Access Request
- Close approach permits (if applicable)

For all work adjacent to the road corridor, the local authority and/or NZTA should be informed, and approval granted prior to work commencing.

5 Disclaimer

This document is to be read and understood by all contractors prior to starting work. The SSSP provided by each contractor should be formulated in conjunction with the requirements as set out in this document.

If there is an inconsistency between the CMP and the resource consent conditions, the conditions within the consent shall prevail.

Completed By: Civil Project Solutions

Signature:

Name: Zac Borrie

Position: Project Manager

6 Appendices

Appendix 6.1 – Typical Trail Cross Sections

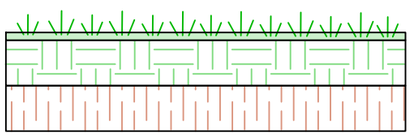
WHEN APPLYING THIS DOCUMENT

The extent of this project are too large to develop consistent cross-sections throughout, Typical cross-sections have been prepared as a guideline only to be applied and adapted as appropriate to the constraints of the particular site.The cross-sections provided may not be appropriate in some cases where extreme ground instability or hazardous areas are present. Note that stabilisation works should only be undertaken where absolutely necessary.

Implimentation of the cross-sections on the State Highway, Local Roads, Paper Roads, Private Land or any other areas shall take into account but not limited to;

- Terrain Hazards (Slips / cliffs / narrow lanes)
- Vehicular Traffic (Existing and Future)
- Existing Ground Stability and Composition
- Trail Drainage and Existing Drainage Systems
- Construction Costs & Feasibility
- Sight Lines
- Maintenance
- Road Safety
- Pedestrian Safety
- Segregated Lanes for Walking / Cyclists and Horse Riders
- Wayfinding
- Walkway Amenity
- Private Land Value
- Preserving the Natural Character of the environment
- Avoiding Disturbance of Earth in Vicinity of Significant Water Bodies
- Utilising Existing Surfaces and Formed Pathways
- Trail slopes and cross-falls
- The appropriate provision of road signage, traffic calming and other implication to vehicle traffic.
- The intended traffic and combination of traffic on the trail, as a general rule 1.5m to be allowed for each form of traffic (walk, bike, horse)

For the purposes of this document, grass layer refers to the top layer of the ground which contains the majority of the organic material, top soil refers to all soil between the bottom of the grass layer and the top of the subgrade.



Disclaimer:
This set of plans has been is subject to peer review, input and plans from other professionals.
All information contained herein is subject to change.

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GENERAL NOTES
1. Coordinates in terms of : .
2. Elevations in terms of : .
3. Contour interval is : .

NO	DATE	REVISION	BY	CHK	APP
.	.	.	.	.	.

PRINCIPAL

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DRAWN	P.PIERARD	30/05/2023
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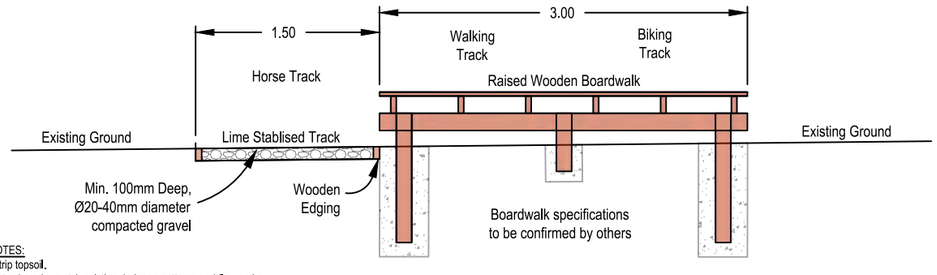
SCALE: . @A3 | ORIGINAL SIZE: A3

TITLE
TE ARA TIPUNA TRACKS
CONCEPTUAL DOCUMENT
COVER PAGE

DRAWING No: J2004-200-01

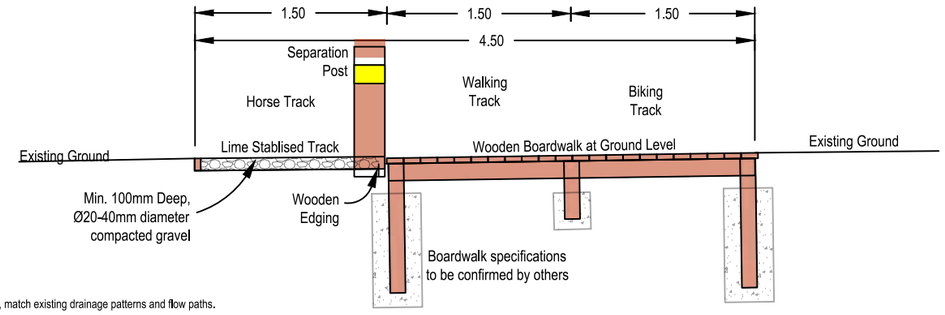
REVISION: 0

Typical Trail Cross-section 1
Raised Wooden Boardwalk



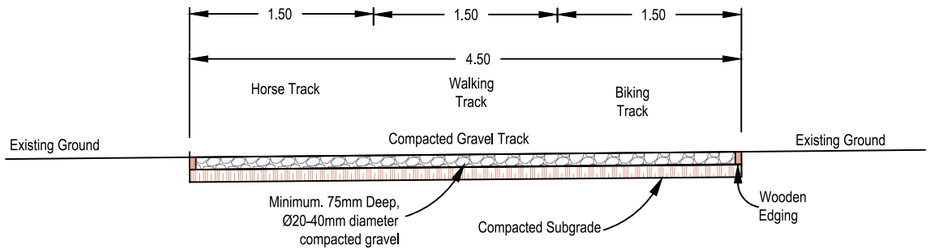
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Supply, place, compact and lime stabalise the track.
4) Auger pile locations.
5) Construct boardwalk per design documentations.
6) Allow stormwater runoff below boardwalk.
7) Construction specifications by others.

Typical Trail Cross-section 2
Ground Level Boardwalk



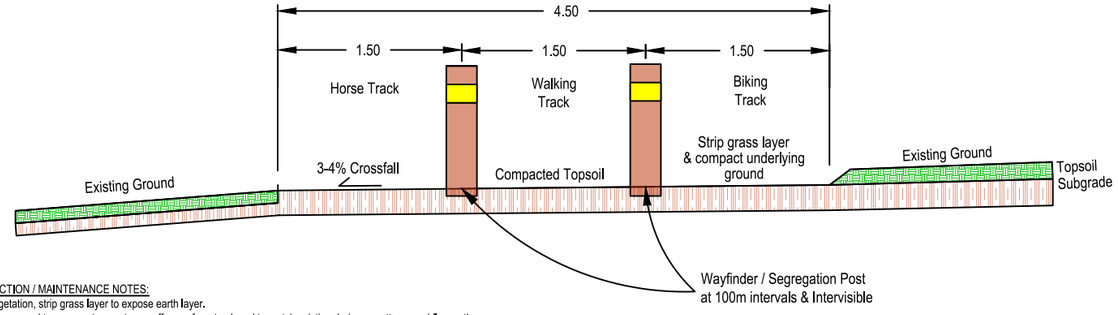
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Auger pile locations.
5) Construct boardwalk per design documentations.
6) Support joists at ground level to run perpendicular to trail direction with spacings to allow stormwater runoff through the structure.
7) Construction specifications by others.

Typical Trail Cross-section 3
Aggregate Trail



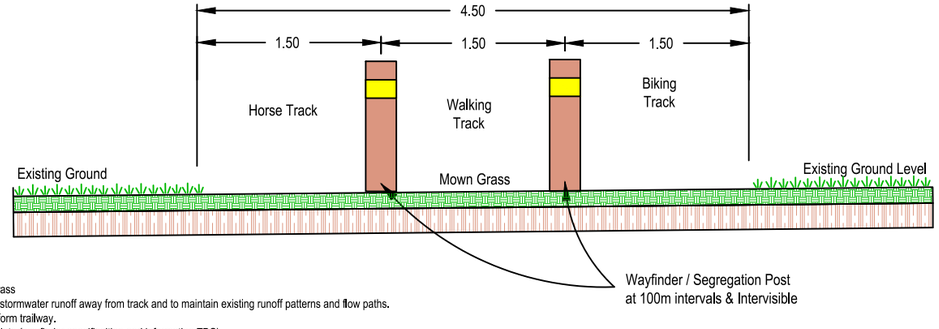
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Install wooden edgings.
4) Supply, place, compact and lime stabalise the track.

Typical Trail Cross-section 4
Way Finding Trail 1



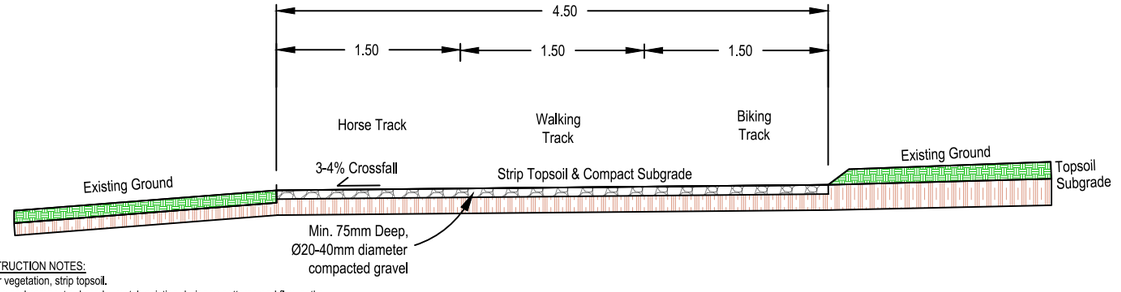
CONSTRUCTION / MAINTENANCE NOTES:
1) Clear vegetation, strip grass layer to expose earth layer.
2) Shape the ground to ensure stormwater runoff away from track and to match existing drainage patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specificaition and information TBC).
5) For sites with less than 15% grade and where a dirt track is preferred or more practical.
6) Regular maintenance to prevent grass regrowth.

Typical Trail Cross-section 5
Way Finding Trail 2



CONSTRUCTION NOTES:
1) Clear vegetation and mow grass
2) Shape the ground to ensure stormwater runoff away from track and to maintain existing runoff patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specificaition and information TBC).
5) Suitable in areas with less than 15% grade and where a grassed track is preffered and appropriate (e.g. through undulating rural hillside)
6) Cyclability of the track to be considered where bike access if envisioned.

Typical Trail Cross-section 6
Way Finding Trail - Steep or Unstable Ground



CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Supply, place, compact gravel track formation.
4) Required for sections over 15% in grade.
5) Subject ot level of instability may require site specific pavement CBR rating or further investigation from geotechnical engineer.

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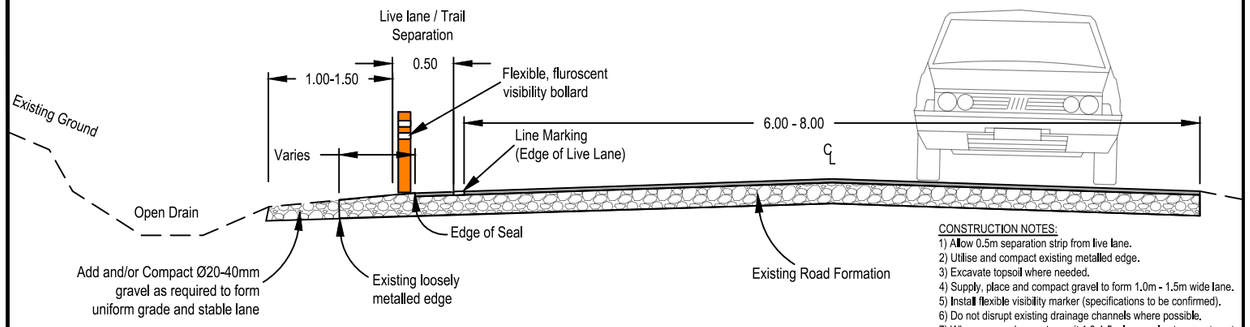
TITLE
TE ARA TIPUNA TRACKS
CONCEPTUAL DOCUMENT
TYPICAL CROSS-SECTIONS

SCALE	ORIGINAL SIZE	DRAWING No	REVISION
1:50 @A3	A3	J2004-200-02	0

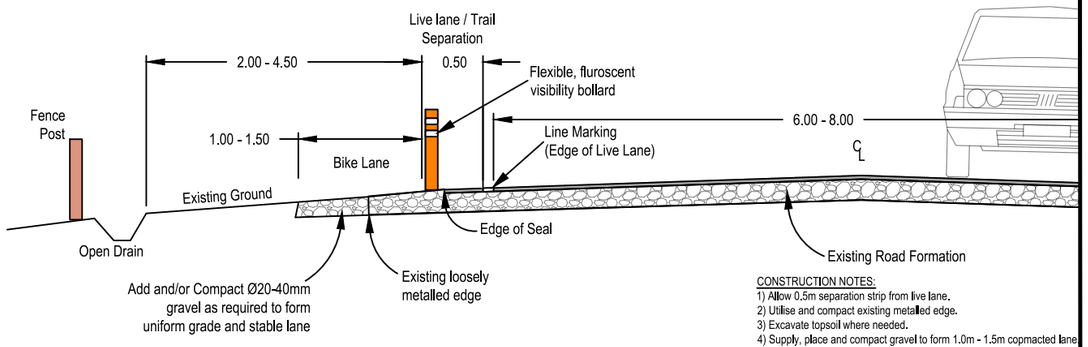
Typical Trail Cross-section 7
Narrow Lane Adjacent Highway



CONSTRUCTION NOTES:
1) Allow 0.5m separation strip from live lane.
2) Utilise and compact existing metalled edge.
3) Excavate topsoil where needed.
4) Supply, place and compact gravel to form 1.0m - 1.5m wide lane.
5) Install flexible visibility marker (specifications to be confirmed).
6) Do not disrupt existing drainage channels where possible.
7) Where space does not permit 1.0-1.5m lane, culvert or revetment may need to be considered.

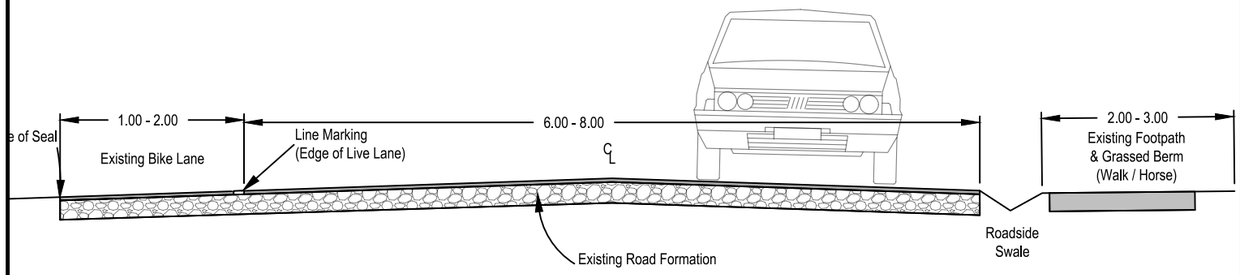
GENERAL NOTE:
Keep horse lane furthest away from live lane, place flexible separation bollards at 200m intervals where space permits.

Typical Trail Cross-section 8
Multi-lane Path Adjacent Highway



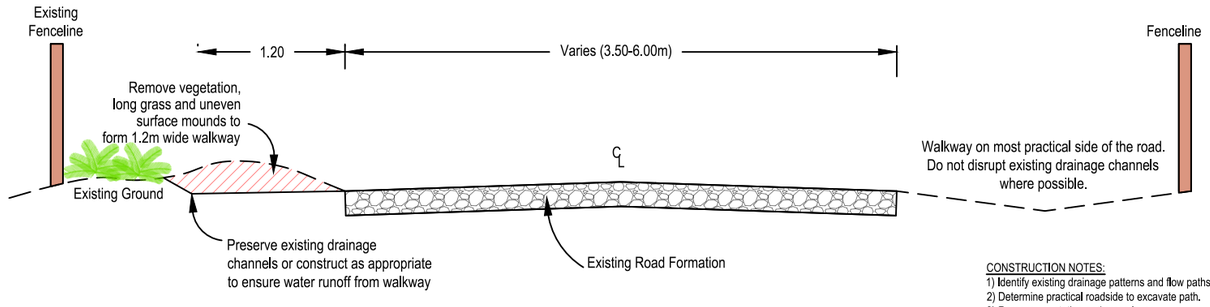
CONSTRUCTION NOTES:
1) Allow 0.5m separation strip from live lane.
2) Utilise and compact existing metalled edge.
3) Excavate topsoil where needed.
4) Supply, place and compact gravel to form 1.0m - 1.5m copmacted lane.
5) Install flexible visibility marker (specifications to be confirmed).
6) Do not disrupt existing drainage channels where possible.

Typical Trail Cross-section 9
Pathways Adjacent Highway in Residential Settlement



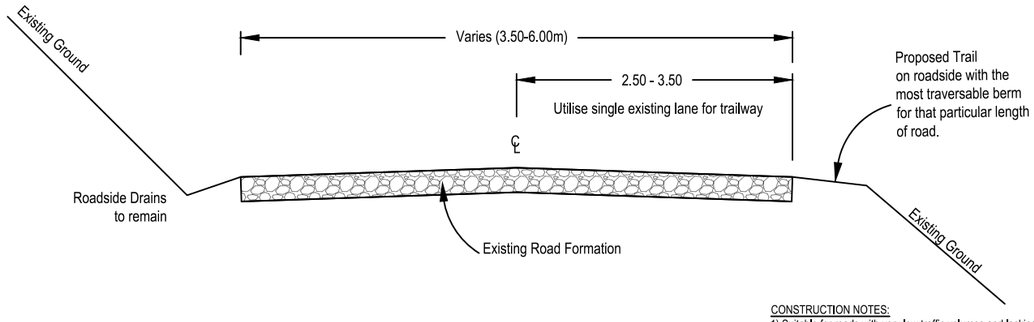
CONSTRUCTION NOTES:
1) Inspect pathways to ensure fit for purpose.
2) Suitable for areas with a reduced speed limit.

Typical Trail Cross-section 10
Walkway Alongside Low-Volume Road



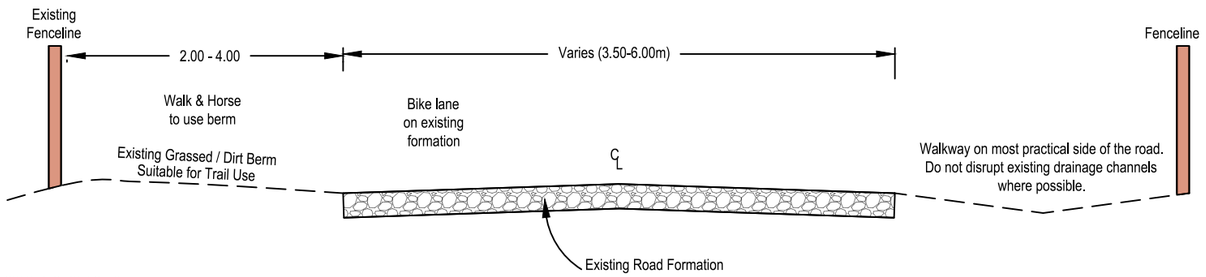
CONSTRUCTION NOTES:
1) Identify existing drainage patterns and flow paths.
2) Determine practical roadside to excavate path.
3) Remove vegetation and grass layer.
4) Shape and compact ground layer to form pathway.
5) Ensure stormwater runoff away from trail.

Typical Trail Cross-section 11
LV Road: Utilising Existing Road Carriageway



CONSTRUCTION NOTES:
1) Suitable for roads with very low traffic volumes and lacking space on roadside berm.
2) Pedestrian signage should be installed to alert drivers of alternative traffic.
3) Widening road berm around blind corners should be considered when possible.
4) Provide "turn-off" areas where pedestrians can move off the road where possible.

Typical Trail Cross-section 12
Existing Local Road Fit for Purpose



CONSTRUCTION NOTES:
1) Identify road and grassed berm fit for purpose.
2) Add road signage as appropriate.
3) Clear vegetation as needed.

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TITLE
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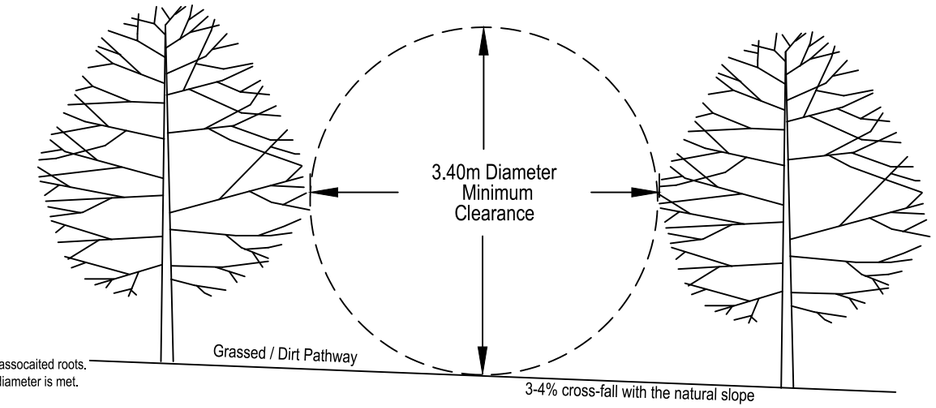
CONCEPTUAL DOCUMENT
TYPICAL CROSS-SECTIONS

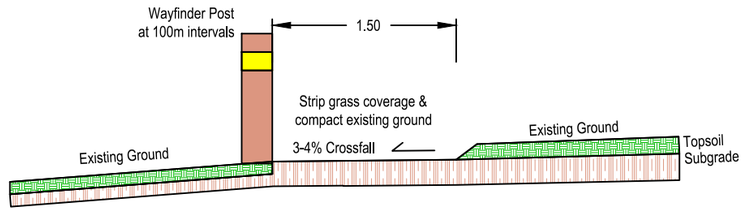
SCALE	ORIGINAL SIZE	DRAWING No	REVISION
1:50 @A3	A3	J2004-200-03	0

Typical Trail Cross-section 13
New Pathway Through Existing Vegetation



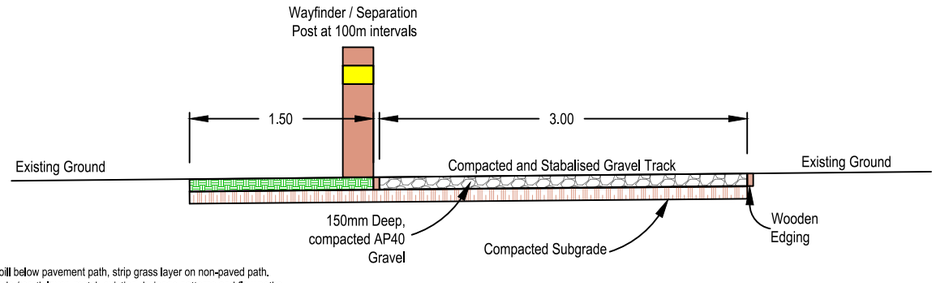
CONSTRUCTION NOTES:
1) Remove larger vegetations and assocaited roots.
2) Trim trees to ensure clearance diameter is met.
3) Remove top layer of grass.
4) Shape and compact underlying soil, maintain existing drainage paths.
5) Ensure wayfinding as appropriate.

Typical Trail Cross-section 14
Solo Bike Trail Through Rural Hillside



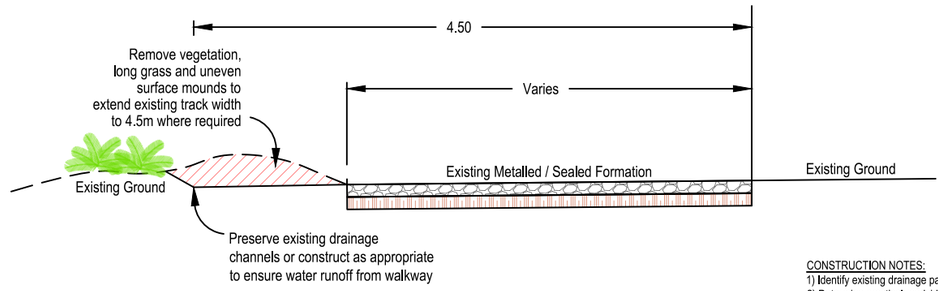
CONSTRUCTION / MAINTENANCE NOTES:
1) Clear vegetation, strip grass layer to expose earth layer.
2) Shape the ground to ensure stormwater runoff away from track and to match existing drainage patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specificaition and information TBC).
5) Regular maintenance to prevent grass regrowth.

Typical Trail Cross-section 15
Tokomaru / Ruatoria Trail (with ATV Use)



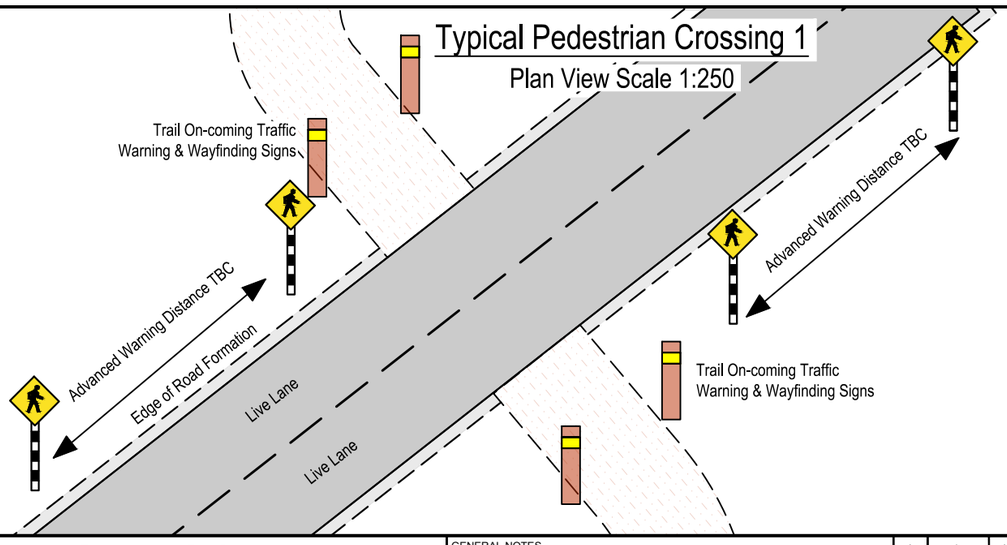
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoill below pavement path, strip grass layer on non-paved path.
2) Shape and compact subgrade / earth layer, match existing drainage patterns and flow paths.
3) Install wooden edgings.
4) Supply, place, compact and lime stabalise the track.

Typical Trail Cross-section 16
Existing Formation within Private Property or Paper Roadway

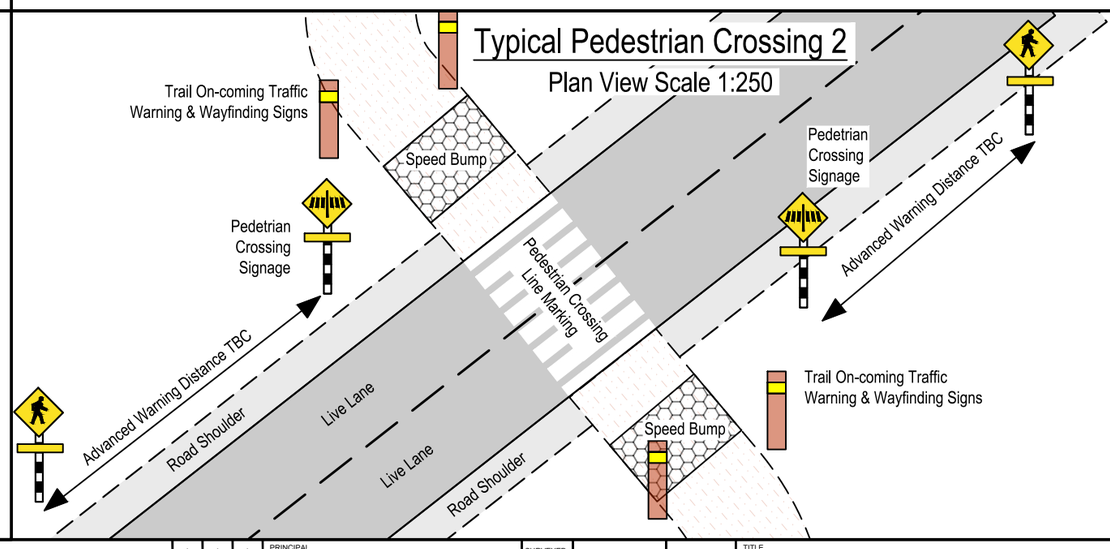


CONSTRUCTION NOTES:
1) Identify existing drainage patterns and flow paths.
2) Determine practical roadside to excavate path.
3) Remove vegetation and grass layer.
4) Shape and compact ground layer to form pathway.
5) Ensure stormwater runoff away from trail.

Typical Pedestrian Crossing 1
Plan View Scale 1:250



Typical Pedestrian Crossing 2
Plan View Scale 1:250



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TITLE
TE ARA TIPUNA TRACKS
CONCEPTUAL DOCUMENT
TYPICAL CROSS-SECTIONS □ PEDESTRIAN CROSSINGS

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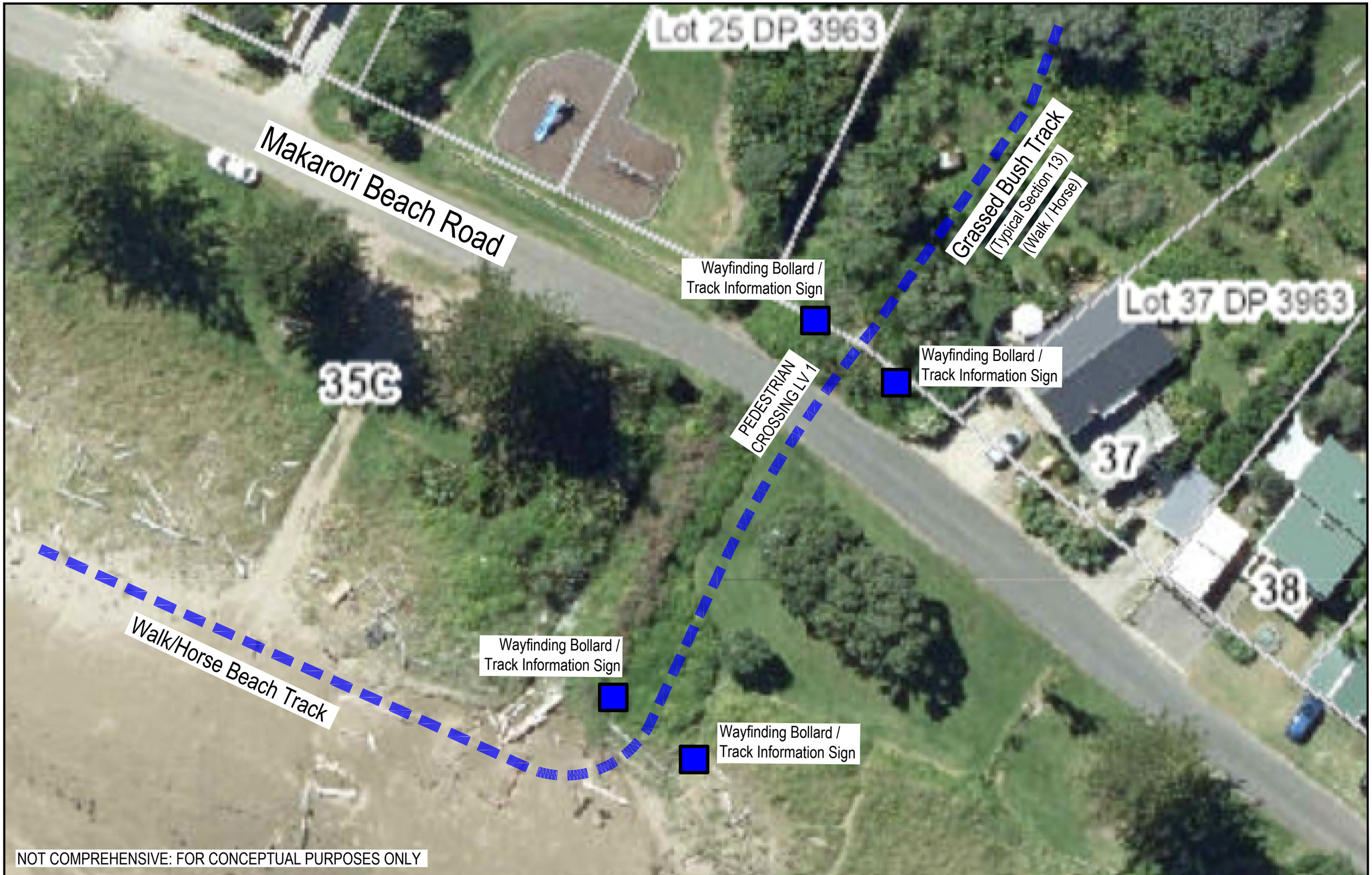

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NO	DATE	REVISION	BY	CHK	APP
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SCALE: NTS @A3
ORIGINAL SIZE: A3

TITLE
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CONCEPTUAL DOCUMENT
EXAMPLE SECTION OF TRAIL 1

DRAWING No: J2004-200-05
REVISION: 0

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3. Contour interval is : .

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DRAWN	P.PIERARD	30/05/2023
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APPROVED		

SCALE: NTS @A3
ORIGINAL SIZE: A3

TITLE
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CONCEPTUAL DOCUMENT
EXAMPLE SECTION OF TRAIL 2

DRAWING No: J2004-200-06
REVISION: 0

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APPROVED		

TITLE
TE ARA TIPUNA TRACKS
CONCEPTUAL DOCUMENT
EXAMPLE SECTION OF TRAIL 3

SCALE	ORIGINAL SIZE	DRAWING No	REVISION
NTS @A3	A3	J2004-200-07	0

Cross existing footbridge

Pedestrian Crossing LV2

Existing footpath & Grass Berm

Typical Cross-section 9

Existing bike lane adjacent highway

Existing Road Formation

mata 2F7B Block

Paremata 2A Block

Part Paremata 4

Part Paremata 4 Block

Lot 5 DP 4042

Lot 18

Lot 19

Lot 20 DP

Lot 21 DP

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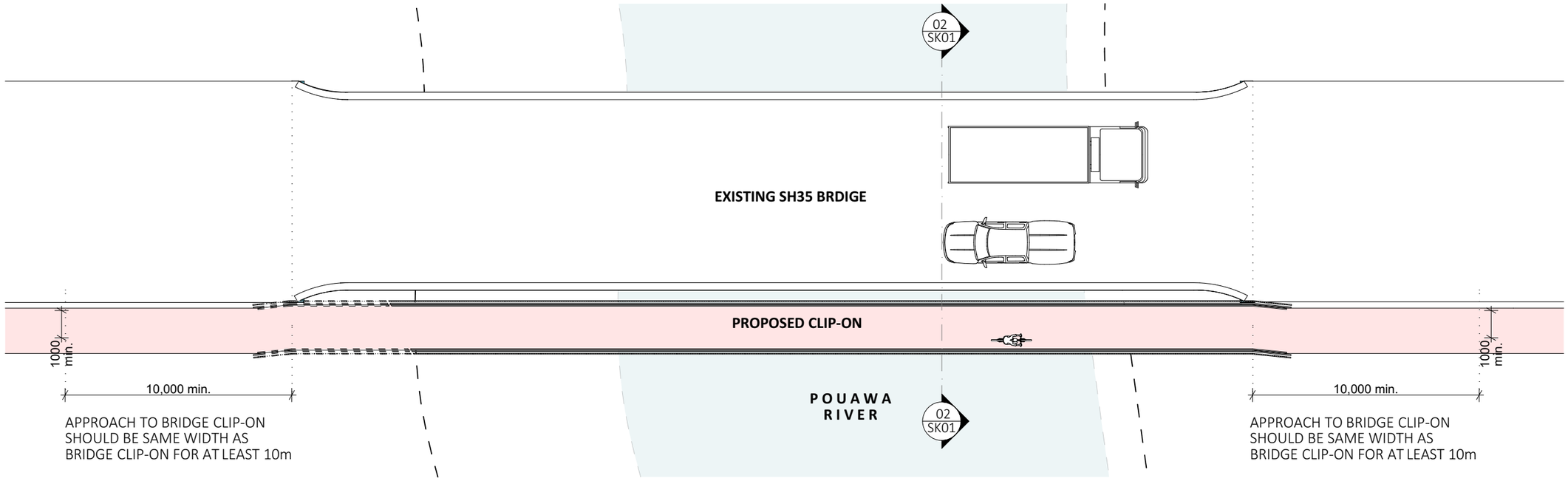
SCALE: NTS @A3
ORIGINAL SIZE: A3

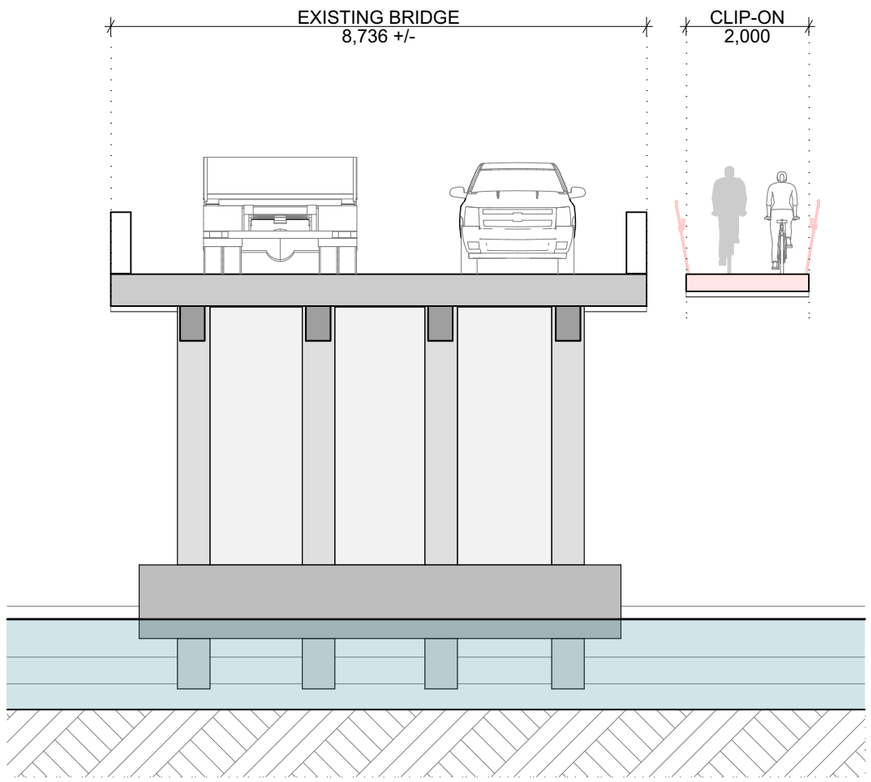
TITLE
TE ARA TIPUNA TRACKS
CONCEPTUAL DOCUMENT
EXAMPLE SECTION OF TRAIL 4

DRAWING No: J2004-200-08
REVISION: 0

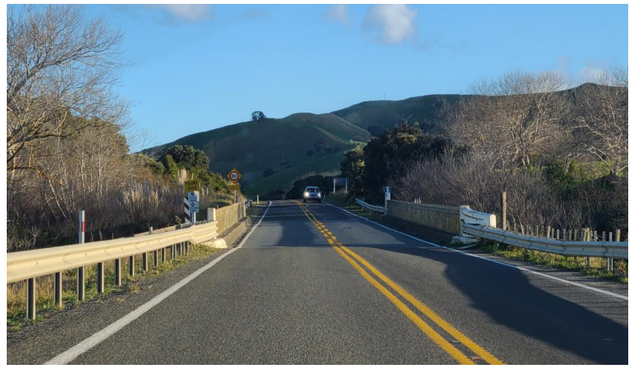
Appendix 6.2 – Typical Bridge & Clip on Bridge Cross Sections



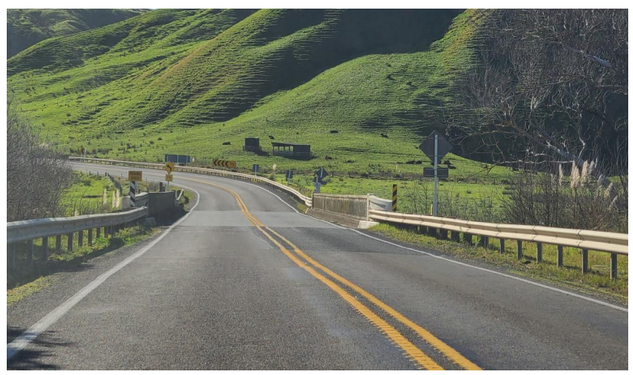
1:200 POUAWA PLAN- PROPOSED CLIP-ON- OPTION 1 01



1:100 POUAWA SHORT SECTION- OPT 1 02



NORTHERN APPROACH



SOUTHERN APPROACH

Location 1 - Clip-On
1101 Whangara Road- Bridge just before the Pouaua Marine Reserve.
Proposal- Clip on bridge, RHS (eastern). To be a minimum of 1.5-2m wide to be single lane and to cater for walkers, cyclists and horses.

CLIENT
CPS

PROJECT
TE ARA TIPUNA TRAIL

ADDRESS
VARIOUS

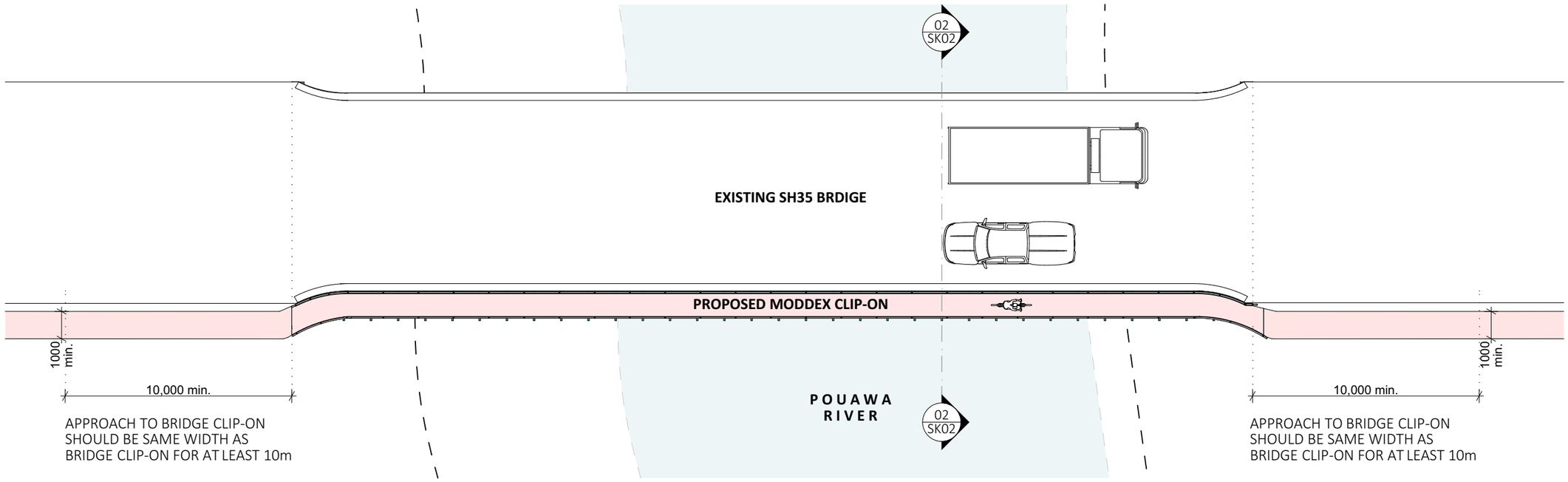
ISSUE STATUS
CONCEPT FOR RESOURCE CONSENT

JOB No	REVISION No	SCALE	ORIGINAL SHEET SIZE
2338		1:200, 1:100	A3

NO **SK01** TITLE **POUAWA OPTION 1**

ARCHITECTS 44

Architects 44 Limited
44 Childers Road Gisborne | PO Box 1241 Gisborne
P 06 867 9622 | F 06 867 9422 | architects@A44.co.nz
www.architects44.co.nz



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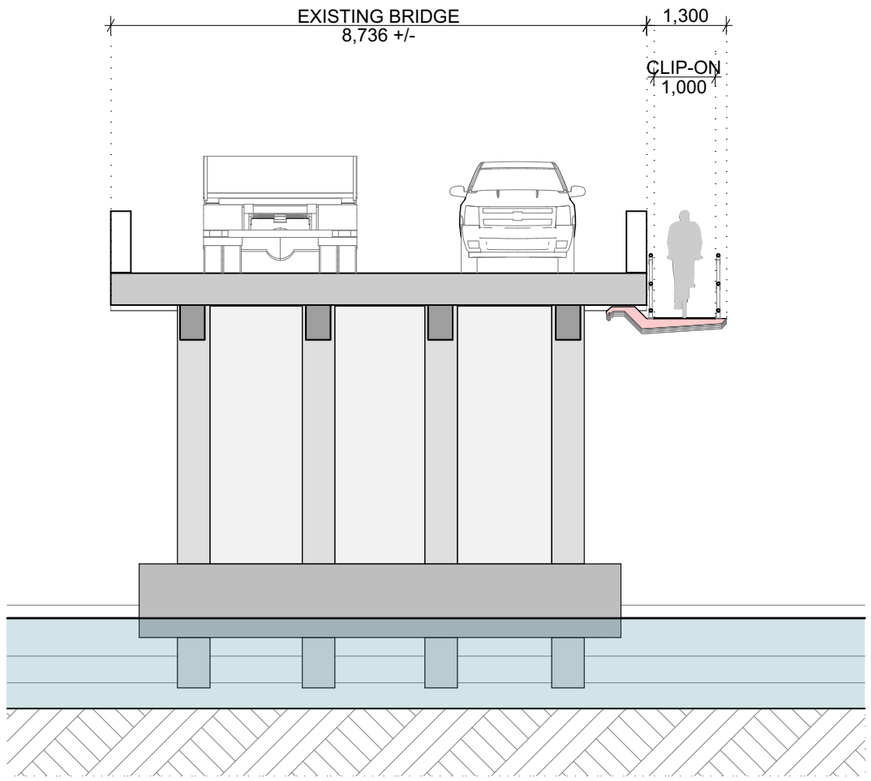
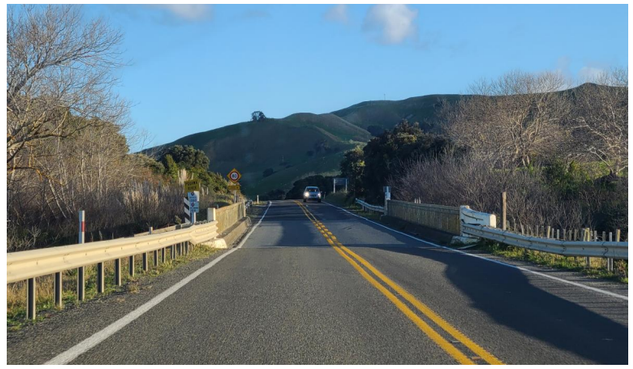
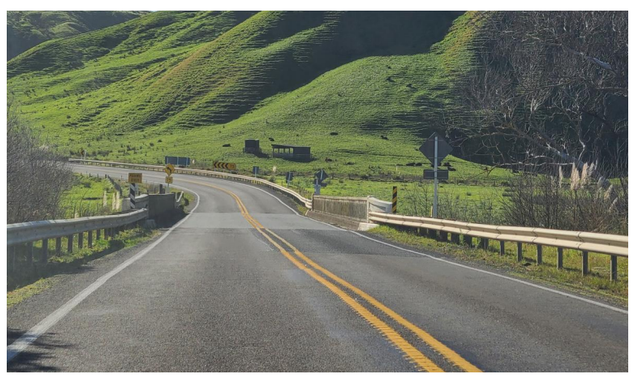


1:100 POUAWA SHORT SECTION- OPT 2 02



NORTHERN APPROACH



SOUTHERN APPROACH

Location 1 - Moddex Clip-On
1101 Whangara Road- Bridge just before the Pouaua Marine Reserve.
Proposal- Clip on bridge, RHS (eastern).
Testing the Moddex Kliptread system.

CLIENT
CPS

PROJECT
TE ARA TIPUNA TRAIL

ADDRESS
VARIOUS

ISSUE STATUS
CONCEPT FOR RESOURCE CONSENT

JOB No	REVISION No	SCALE	ORIGINAL SHEET SIZE
2338		1:200, 1:100	A3

NO **SK02** TITLE **POUAWA OPTION 2**

ARCHITECTS 44
Architects 44 Limited
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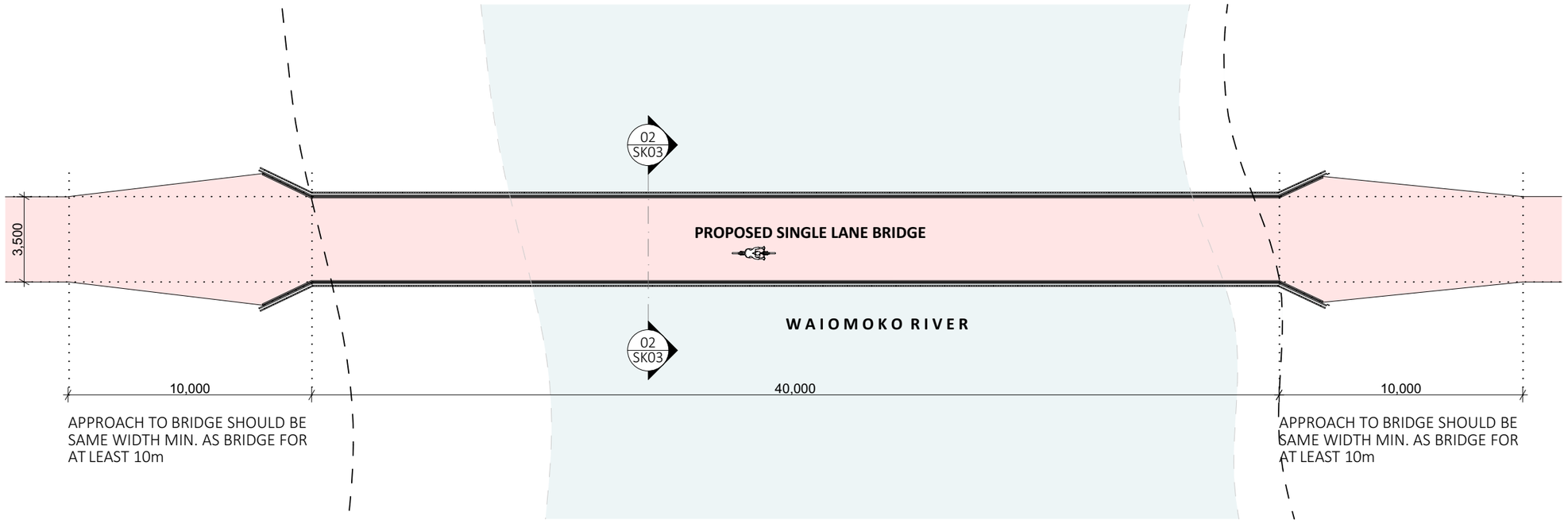
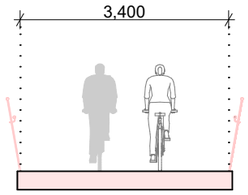
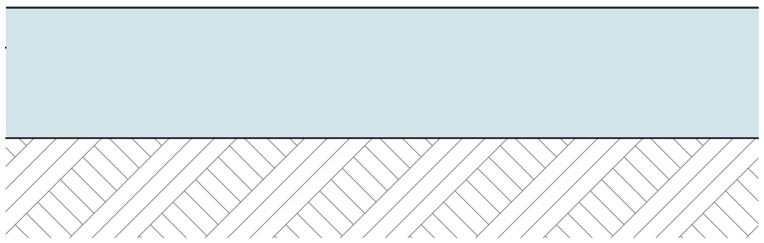
www.architects44.co.nz



1:200 WHANGARA PLAN- NEW BRIDGE 01





1:100 WHANGARA SHORT SECTION 02

LOCATION

Location 2 - New Bridge

Waimoko River coming onto Pa Road. Proposal- New bridge crossing the Waimoko River entering onto Pa Road and coming into Whangara. Bridge to be single lane with light vehicle access only. Lane width 3.1m or as per standard practice.

CLIENT
CPS

PROJECT
TE ARA TIPUNA TRAIL

ADDRESS
VARIOUS

ISSUE STATUS
CONCEPT FOR RESOURCE CONSENT

JOB No	REVISION No	SCALE	ORIGINAL SHEET SIZE
2338		1:200, 1:100	A3

NO **SK03** TITLE **WHANGARA**

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KLIPTREAD™

WALKWAY AND HANDRAIL SYSTEM

Making your bridge walkway and barrier installation seamless...

Patent Pending 767353

Moddex proprietary Kliptread™ System ensures walkways and handrails on bridges can be specified and fitted effortlessly, with compliance guaranteed.

KlipTread™ has been specially designed and manufactured for upgrades on existing bridge infrastructure that are no longer compliant due to changes in standards over the years, and/or due to deterioration of walkways under the harsh environment in which they are found.

- Modular Flexibility
- No-weld assembly
- Flat pack delivery
- Reduce corrosion
- Available ex-stock
- Retrofittable

Technical Data

Material

Stanchions and rails	Steel/grade C250
Clamp fittings	Ferrous Casting
Clamp locking screws	Stainless Steel (304)

Protective coating

Stanchions and rails	G390 Hot-dip Galvanized (min 390g/m²)
Clamp fittings	Hot dip Galvanized with patented protective coating on threads
Arm	G 600. Minimum 500g/m²
Optional	Powder coating and paint specs*

*The standard process for Powder Coated and Painted handrail products is as follows: black steel is used for fabrication. The steel is sand blasted and a zinc primer coating is applied. The powder coat / paint coat is then applied over the zinc primer creating a dual shield coating with a decorative finish.

HANDRAIL

Dimensions

Stanchions

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2 – 4.0 (loading dependent)

Rails

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2mm

Clamp fittings

Thickness	5.0mm (approx)

Weight

Variable depending on building/application/code

Stanchion with clamps	7.2 to 8.0kg
Rail @ 6.0m	21.6kg

Fixings

Stanchion attachment to

Concrete	M12 galvanized mechanical concrete anchor
Structural steel	M16 galvanized high tensile bolt set

*Other Fixing options are availble on request

WALKWAY

Angle Side Supports	75x75x6mm
Material	FRP Grating

CANTILEVER ARM

Dimensions	8mm Plate 50mm Plate Hooks
Material	C350

Retrofittable

- Can be added to a bridge prior to any maintenance and used as an access platform.
- Installs directly onto bridge structure, separate to sleepers and tracks. Allows for the sleepers to be removed and replaced. without dismantling the walkway or handrail – allows the bridge to be safe for access prior and during sleeper and track work.
- Supplied in modular kitset form including all fixings, packed in 6.5m sections. Benefit of this makes transport to site straight-forward.

Safe, Compliant and Approved

- Fully compliant – pre-enigineered and certified.
- A compliant retrofittable walkway proprietary system.
- It has type approval. Which means if you are on the KiwiRail network, this solution is approved for use.
- Remove risk of falling during inspections and future maintenance.
- Modular, pre – engineered retrofit system means JSA/SSSP. requirements will be consistent and reliable, allowing for a greater margin of safety.

Speed and Ease of install

- Simple installation from above the structure.
- Easy and fast installation – specifically designed with KiwiRail to overcome traditional long-winded and difficult walkway installation.
- Cuts downtime to a fraction of previous walkway installs. (Installation completed in hours not days).
- Safety of install – designed to be installed from the top. Removes scaffolding costs and downtime.
- Speed of install – Uses a completely different methodology of install. What currently takes them 2months will be reduced to days.
- No welding or hotworks on site. No drilling to existing structure required.
- Moddex offers support and training for teams to get a full understanding of install methodology.

Warranty

50 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations, unless otherwise negotiated at the time of purchase.*

*Excludes FRP

Inspection & Maintenance

Visual inspection for any damage or loose fixings must be done periodically and prior to use. No certified maintenance required. Basic wear and tear preventative maintenance is recommended, as per manufacturer's specifications and recommendations.

Compliance

Moddex KlipTread ™ system is designed and manufactured in accordance with AS/NZS 1657:2018. Galvanized to AS 4792 and AS/NZS 4680:2006 (where applicable).

Testing

Stringent vibration endurance tests have been performed and independent testing has been carried out to confirm the suitability of the Moddex system in maritime conditions. FEA modelling, static load testing with a PS1 provided.

Design Life

Standard design life of Walkway is 50 years.*

*Excludes FRP

Applications suited to

- Interchangeable clamp hooks ensure fitting to a range of different I-beam profiles is seamless.
- Clipon walkways allow safety for pedestrians and service personnel by segregation from vehicles.
- Access requirements on I-beam structures
- Platforms and plantdecks

KT30 KlipTread™ Hot-dip Galvanized.
Industrial Handrail & Walkway Specifications

Clip-on Cantilever arm with a walkway
Top, mid & bottom rail

KiwiRail Type Approved
Patent Pending 767353

Key features
- Modular flexibility
- No-weld assembly
- Flat pack delivery
- Reduced corrosion
- Available ex-stock
- BIM & CAD Support

Applications suited to
- Interchangeable clamp hooks ensure fitting to a range of different I-beam profiles is seamless.
- Clipon walkways allow safety for pedestrians and service personnel by segregation from vehicles.
- Access requirements on I-beam structures
- Platforms and plantdecks

Specification Summary
Supply of KlipTread ™ proprietary system which includes a clipon cantilever arm and a TR30 handrail mounted onto a walkway to substrate according to Moddex specifications.

Technical Data

Material

Stanchions and rails	Steel/grade C250
Clamp fittings	Ferrous Casting
Clamp locking screws	Stainless Steel (304)

Protective coating

Stanchions and rails	G390 Hot-dip Galvanized (min 390g/m^2)
Clamp fittings	Hot dip Galvanized with patented protective coating on threads
Arm	G 600. Minimum 500g/m^2
Optional	Powder coating and paint specs*

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HANDRAIL

Dimensions

Stanchions

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2 – 4.0 (loading dependent)

Rails

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2mm

Clamp fittings

Thickness	5.0mm (approx)

Weight

Variable depending on building/application/ code

Stanchion with clamps	7.2 to 8.0kg
Rail @ 6.0m	21.6kg

Fixings

Stanchion attachment to

Concrete	M12 galvanized mechanical concrete anchor
Structural steel	M16 galvanized high tensile bolt set

*Other Fixing options are availble on request

WALKWAY

Angle Side Supports	75x75x6mm
Material	FRP Grating

CANTILEVER ARM

Dimensions	8mm Plate 50mm Plate Hooks
Material	C350

Compliance
Moddex KlipTread ™ system is designed and manufactured in accordance with AS/NZS 1657:2018.
Galvanized to AS 4792 and AS/NZS 4680:2006 (where applicable).
KiwiRail Type Approved - Certificate Number B - TA - 1001.

Testing
Stringent vibration endurance tests have been performed and independent testing has been carried out to confirm the suitability of the Moddex system in maritime conditions. FEA moddelling, static load testing with a PS1 provided.

Warranty
50 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations, unless otherwise negotiated at the time of purchase.*
— Refer installation manual
* Excludes FRP

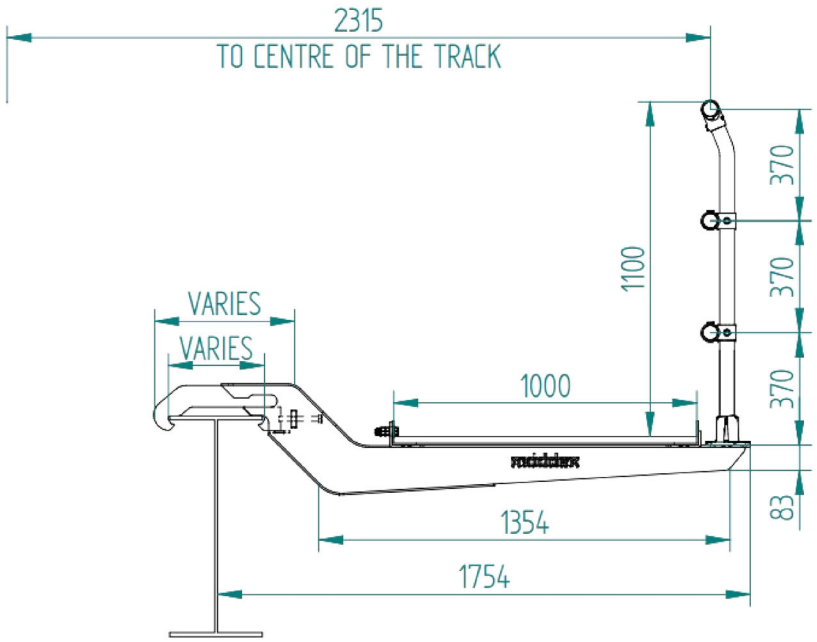
Inspection & Maintenance
Visual inspection for any damage or loose fixings must be done periodically and prior to use. No certified maintenance required. Basic wear and tear preventative maintenance is recommended, as per manufacturer's specifications and recommendations.
— Refer installation manual

Design Life
Standard design life of Walkway is 50 years.*

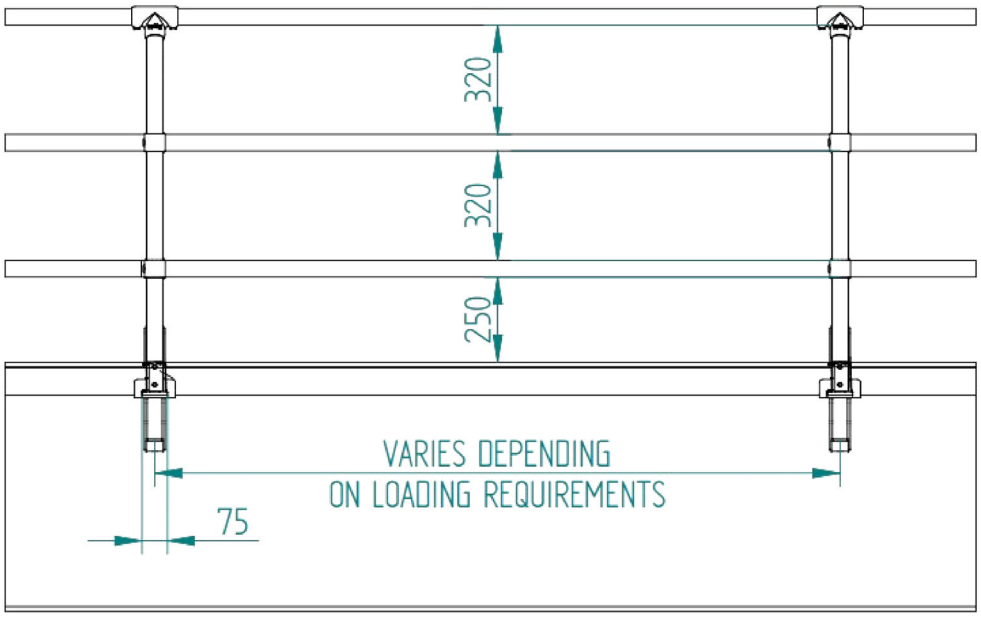
* Excludes FRP

Technical Information

Clip-on Cantilever Arm & Walkway



Industrail Handrail Tuffrail TR30



For information or technical support please contact us
T 1800 663 339 (AU)
T 0800 663 339 (NZ)

moddex.com

MODDEX

THE LEADERS IN MODULAR
BARRIER SYSTEMS

moddex®
EVERYTHING FITS

CONTENTS

ABOUT US

Everything Fits.

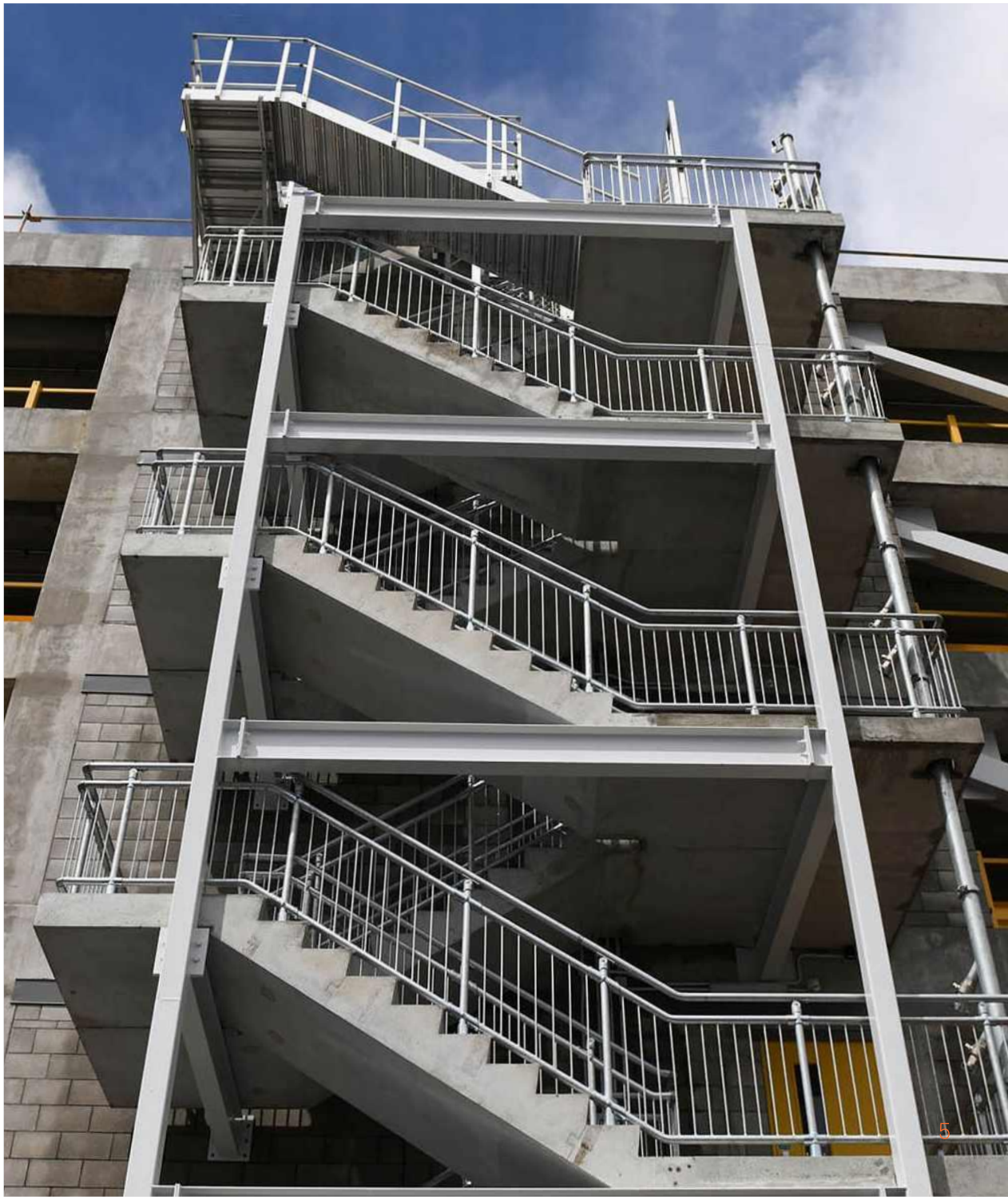
Moddex is Australasia's leading manufacturer of innovative barrier systems for large-scale infrastructure and non-residential construction projects.

We do things differently at Moddex - we're always on the lookout for better ways to solve the unique obstacles construction projects face, so that our customers can focus on doing what they do best.

Our extensive range of handrails, barriers, commercial and industry balustrade and guardrail systems are specifically designed for a wide range of industrial, commercial and civil applications. All our systems comply with Australian and New Zealand Standard, NCC and WHS regulations, so you know you're always covered.

Our range of proprietary modular designs are manufactured in house and designed to save our customers time and money, and our personalised approach to customer service ensures you're looked after from concept to installation. Our barrier systems are fit for purpose, simple to use, and able to be modified to cater for any unique requirements, and our streamlined ordering and installation process is designed with customer convenience in mind.

With Moddex there is ultimate peace of mind, with knowing everything fits. Get in touch today to find out how we can help with your next project.



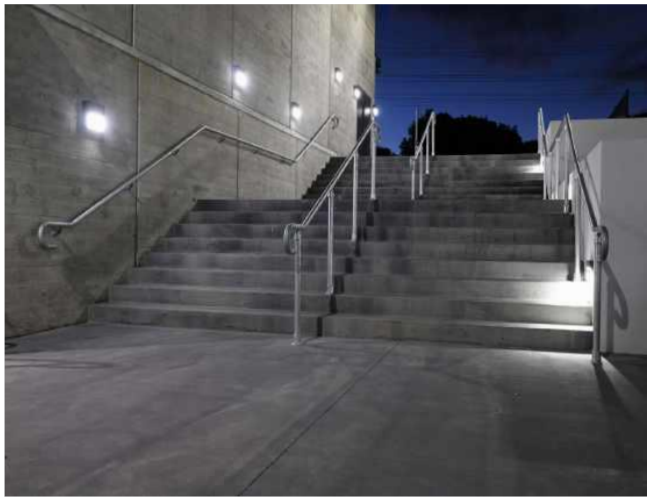
ASSISTRAIL®
PUBLIC ACCESS HANDRAILS

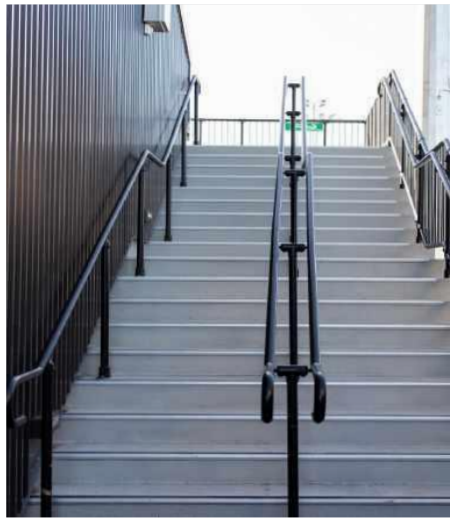
Moddex Assistrail® Public Access and Disability Handrail systems ensure safety on accessible routes for people moving in and out of buildings and for the mobility impaired or vision impaired can traverse your site safely and with ease. You have the backing of our technical experts who can advise on potential hazards and the best solutions.
Moddex Public Access and Disability Handrails comply with the New Zealand Building Code (NZBC) and New Zealand Standard 4121:2001. With 15 configurations available in the Assistrail® family, Moddex Public Access and Disability Handrails offer:

- Single or double rail requirements for primary and secondary schools
- Smooth and continuous top rails for compliance with NZS 4121:2001 and the NZBC
- Galvanized zinc for durability and corrosion resistance
- Modular Kerbrails fully compliant to the NZBC - D1 Accessible Routes.

APPLICATIONS

- Shared pedestrian paths
- Sports and recreation centres
- Service platforms
- Roof service areas and fall edges
- Warehouses and loading bays
- Access ramp and stairs
- Fire and access stairs
- Schools and universities
- Safety railing for mezzanine
- Hospitals and medical facilities
- Public transport and sightseeing
- Community and recreation centres.





CONECTABAL®
COMMERCIAL BALUSTRADES

When you need to mitigate or eliminate risk to workers, customers and visitors from falls from height in public areas, why not consider Moddex Conectabal® Commercial Balustrades?

Conectabal® can also form part of a cohesive solution as they're designed to integrate easily with our Tuffrail® and Assistrail® ranges.

Moddex commercial balustrades offer a high safety load rating and will achieve compliance with every standard in any application.

With nine configurations available in the Conectabal® family, Moddex commercial balustrades are suitable for:

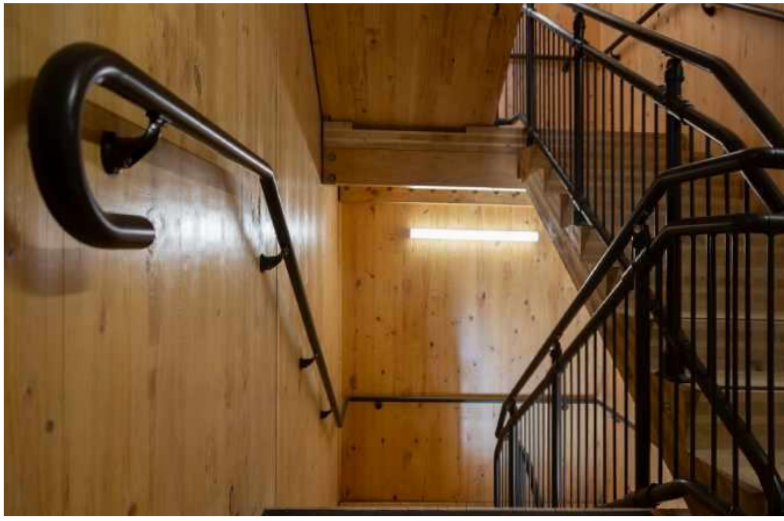
- Mitigating or eliminating falls from above one metre for public use areas.

Other features:

- Balusters at 100mm intervals to exceed standards across New Zealand Kerbrail configuration for added safety
- Crowd loadings up to C5 classification on request.

APPLICATIONS

- Retaining walls
- Car parks
- Access ramps and stairs
- Recreation centres
- Public access areas
- Footbridges
- Culverts
- Loading bays
- Mezzanines
- Fire stairs



TUFFRAIL®
INDUSTRIAL HANDRAILS

Moddex Tuffrail® Industrial Handrails ensure pedestrians, employees and site visitors are protected against corroded handrails – tough in the face of sea spray or chemical corrosion.

Moddex Industrial Handrails deliver NZS 1657 compliant protection for workers across mezzanines, stairs, service platforms, walkways and fall edges.

With four configurations available in the Tuffrail® family, Moddex Industrial Handrails offer:

- Single rail edge protection
- Top and mid rail designs / with toeboards
- Compliance with NZ Standard NZS 1657.

APPLICATIONS

- Coastal regions
- Water treatment plants
- Warehouses
- Loading bays
- Airport
- Shopping centres
- Pedestrian paths
- Bridges
- Car parks
- Recreation centres

BIKESAFE®
BIKEWAY BARRIERS

Moddex Bikesafe® Barriers ensure you protect cyclists, especially those travelling at speed, and eliminate or mitigate injury from falls. Bikesafe systems are quick and easy to install, with curved sections to flow with cycle ways.

The smooth continuous top rails help prevent or mitigate injury for both pedestrians and cyclists.

Bikesafe® Bikeway barriers are designed to integrate easily with our Conectabal and Assistrail range.

Moddex Bikeway Barriers are designed to align with Austroads Guide to Road Design Part 6A and 6B and the NZTA Bridge Manual B6.4.

With six configurations available in the Bikesafe® family, Moddex bikeway barriers offer:

- Continuous full or partial offset barriers for protection across culverts, bridges, headwalls and hazards
- Smooth and continuous top rails for injury prevention
- Curves to flow with bike paths or cycle ways.

APPLICATIONS

- Shared pedestrian paths
- Over and around culverts
- Footbridges
- Retaining walls

BRIDGERAIL™
BRIDGE BARRIERS

Moddex proprietary Bridgerail™ systems ensure balustrades on bridges can be specified and fitted effortlessly, with compliance guaranteed. This product is perfectly suited to public access areas forming part of road, rail or other elevated bridge structures.

Moddex pre-engineered designs are able to provide ultimate peace of mind to our Road and Rail Authorities, Consulting Engineers and Civil Contractors alike.

Moddex has created this unique Bridgerail™ system to comply with AS/NZS 5100.2 Clause 12.5 and the NZTA Bridge Manual Compliant to Clause B6.4.*

Bridgerail™ makes your transport infrastructure barrier systems seamless:

- Pre-fabricated kit-form systems allow for speedy installation
- No need for site welding – Modular assembly
- Tough and durable – Bridgerail™ has a 100-year design life
- Bridgerail™ is on average 30% faster to install than traditional pre-fabricated systems.

APPLICATIONS

- Road bridges
- Rail bridges
- Cycle bridges
- Concrete structures

*Excludes where the road controlling authority requires the barrier to restrain crowds or people under panic conditions

KLIPTREAD™
CLIP-ON WALKWAY SYSTEM

Moddex proprietary Kliptread™ System ensures safety and compliance on bridges by allowing walkways and handrails to be specified and fitted effortlessly.

KlipTread ™ is a fully compliant, retrofittable system that is pre-engineered and certified, allowing for a greater margin of safety.

Simple installation from above the structure, cuts downtime to a fraction of previous walkway installs and ensures safety.

APPLICATIONS

- Road bridges
- Rail bridges
- Cycle bridges

KlipTread ™ makes your bridge walkways and barrier installation seamless:

- Pre-Engineered
- Flat- Packed Kit
- Fully Compliant
- Clip-On
- Retrofittable
- Quick and easy to Install.

EZIBILT™
MODULAR RAMP,DECK & STAIR SYSTEM

Patent Pending NZ778084

The Ezibilt™ Modular Stair, Ramp & Deck System is the ultimate pre-engineered modular solution for fast-tracked construction of accessibility stairs, ramps and decks.

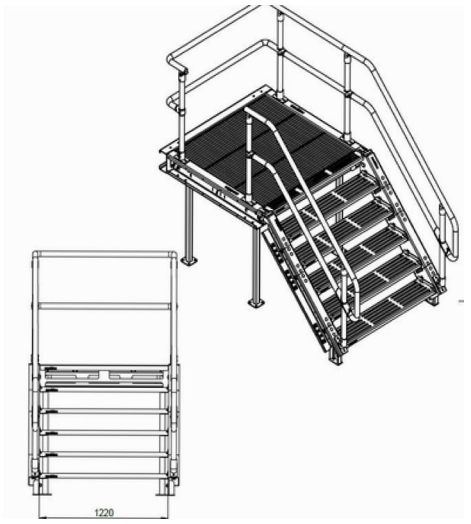
Designed for simple assembly by any builder, the Ezibilt stair, ramp and deck system provides the foundation for easily integrated installation of Moddex handrail and balustrades and allows for timber cladding to be added once installed.

Adjustable and compatible to fit sloping site terrain with ramps and platforms having adjustable legs and stairs with adjustable stringers (both in length and angle) usable from 24° through to 38°.

The Ezibilt system replaces traditional custom-built access ramps, stairs and decks and eliminates the time-consuming processes associated with site measuring, customised design, delivery and installation.

APPLICATIONS

- Schools
- Portable buildings
- Fire escape platforms & stairs
- Portacoms
- Site offices
- Parks, outdoor huts, walking tracks & viewing platforms
- Container houses
- Permanent ramp, deck & stair applications on all construction sites



MATERIAL TYPES

Within our Industrial Handrail range - Tuffrail, we have three material types, that between them cater for pretty much any environment.

When you're dealing with sites exposed to the elements and harsh chemicals, you need to know that the handrail and balustrade systems in place are tough and capable of providing maximum site safety.

Moddex innovative engineering design and technology brings renowned expertise essential to implementing the barrier solution made from the most suitable raw materials, including :

- Hot-dip Galvanised Steel
- Marine grade Aluminium
- 316 Grade Stainless Steel.

Marine-Grade Aluminium | 316 Grade Stainless Steel | Hot Dip Galvanised Steel

MOUNT TYPES

T2 - Top Mount (2 Fixings)

F2 - Face Mount (2 Fixings)

C11 - Channel Mount (2 Fixings)

C13 - Channel Mount (2 Fixings)

T4 - Top Mount (4 Fixings)

GD - Inground Mount

CD - Cored Mount

AM - Angle Mount (2 Fixings)

CM - Collabsible Mount (4 Fixings)

WHY MODDEX?

IN-LINE JOINER

Made from galvanised steel and marine grade aluminium, it comes in a range of swivel, straight and 90-degree forms and fully complies with industry standard AS 1428 and NZS 4121 governing public access areas and ramps for use by people with disabilities. The Swivel In-line Joiner provides internal expansion from 0-90 degrees. Together with Straight In-line and 90-degree joiners, we can overcome any on-site challenge and simplify any complex handrail or balustrade installation.

DEXX® LOCKING SCREW

Designed to create an automatic, long-lasting deadlock when screwed in, the unique 5-star connection is only unlockable using a specific Moddex-supplied DEXX® screwdriver. The advanced knurled-edge technology allows for deadlocks which withstand even the most rigorous vibration tests.

THE TUFFGARD® TOEBOARD

The light, flexible and structurally-tough Tuffgard® Toeboard, was created in response to AS/NZS 1657. The modular post bracket assembly allows you to easily make fine adjustments in order to meet the legal 10mm gap requirement above raised walkways. You have the control and flexibility to adjust the height of the toeboard across uneven surfaces without the need for welding tools and onsite customisation. Slotted holes in the Tuffgard® Toeboard allow for almost-infinite adjustment when fitting up to the post bracket.

ADJUSTABLE TOP RAIL FITTING

Unlike the old traditional welded ball-joint, the adjustable top-rail fitting achieves uninterrupted, continual hand flow for the end user in line with AS/NZS 1567. Fully-adjustable, the ergonomic design spans from level to 45 degrees and features rounded edges, along with strategic placement of screw beneath the rail.

SMOOTH MANDREL BENDS

To ensure smooth hand flow, strength and durability, Moddex handrail transitions are typically mandrel bent by CNC benders to suit site specific angles and dimensions. Inferior handrail transition points often are assembled with coupling rather than mandrels bends in the critical load bearing transition areas of a handrail. This increases the chance of a handrail failing or coming loose in time and doesn't provide a neat finish that fits well into the hand.

ERGONOMIC CONNECTOR

The ergonomic connector is the ultimate sleek, stylish, streamlined and safe solution when compared to traditional connectors. With the thinner-diameter form and locking screws flush underneath, the ergonomic connector ensures the flow of the hand along the rail is unimpeded in accordance with AS/NZS 1657.

THREAD PROTECTION COATING

To ensure the longevity of our product in the field, Moddex applies a thread protection coating after the hot dip galvanizing and thread cutting process. This final zinc coat covers both the previously hot dip galvanized surface and the freshly cut threads, creating a dual finish on the main body of the connector and a durable coating on the raw steel that is exposed during the thread machining process.

As a result of this additional thread protection coating, the threads hold up exceptionally well even in corrosive environments which are supported by our product warranties.

MODULAR SYSTEM CONNECTIVITY

Our modular components are designed to connect with each other to create a more streamlined ordering and installation process. Through modular system connectivity, it's now possible to achieve seamless connections from disability handrail systems to commercial balustrade systems.

END-TO-END PROCESS

Our team will manage your project, budget and reputation with New Zealand's most trusted range of handrails and balustrades.
We can assist you through the entire project process or at various stages as directed depending on your needs and in-house expertise.

1

Client Consultation

Establish a thorough understanding of scope of works, including budget, intended application, available plans & deadline for delivery.

2

Compliance Advice

Advise on compliance for intended application against all relevant standards, including New Zealand Standards, Disability Discrimination Act, New Zealand Building Code & International Standards.

3

Proposal Submission

Development and submission of a project proposal for client approval with costings, sketches or plans and specification sheets for every product recommendation.

4

Moddex Site Measurement

Attendance on-site for detailed site measurements to inform accurate development of CAD drawings.

Client Site Measurement

Supply of site measurements from the client, architects, builders, project managers or installers to inform accurate development of CAD drawings.

5

CAD Design

Review of proposal & critical compliance dimensions against relevant standards & issue design intent drawings.

6

Design Approval

CAD designs informed by site measurements, compliance & budget submitted for approval & compliance sign-off with all relevant stakeholders, including builders, architects & or project managers.

7

Shop Drawings

Final production & installation drawings supplied, including a parts supply list with instructions on where parts apply.

8

Production Management

Assembly of all required parts for scheduled delivery to site, including custom fabrication, painting, galvanizing or powder coating, if required.

9

Freight

Scheduled delivery of all required parts in alignment with client project timelines from Moddex warehouses New Zealand-wide.

10

Moddex Installation & Handover

Compliant installation on-site care of our nationwide network of accredited installers, along with the supply of our care & maintenance manual, product certification & warranty certificates.

Client Installation

Client organises self-installation on site. Moddex supplies full installation drawings, along with a Moddex Installation Guide. Moddex technical support is available if required.

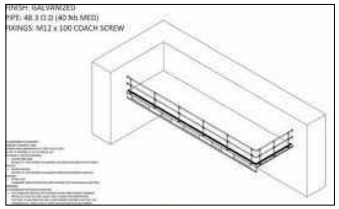
DESIGN PROCESS

The Moddex system ensures Everything Fits™. And we don't just mean the components. We're talking about the Moddex process that makes the entire experience smooth, solves problems and guarantees compliance.

1

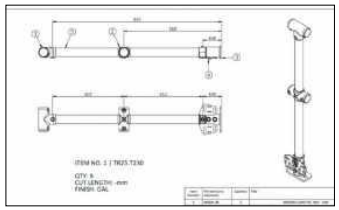
After Moddex receives a site plan, the design team identifies the different systems that will be used, matching them to the correct Moddex system configuration numbers and the plan is marked up accordingly. Moddex's plan mark-up system is unique in the industry and enables you to see exactly how the modular barrier system will fit into the overall design.

2



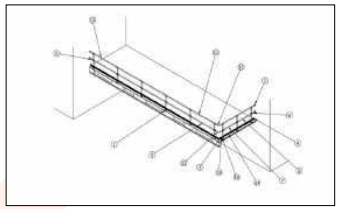
Using site measurements or the client's 3D model, a Design Intent (DI) is created. The DI is a snapshot of the proposed installation that quickly identifies any misconceptions.
The process provides enormous flexibility for customers to have input at an early stage and surfaces all potential compliance issues before committing resources to shop drawings.

3



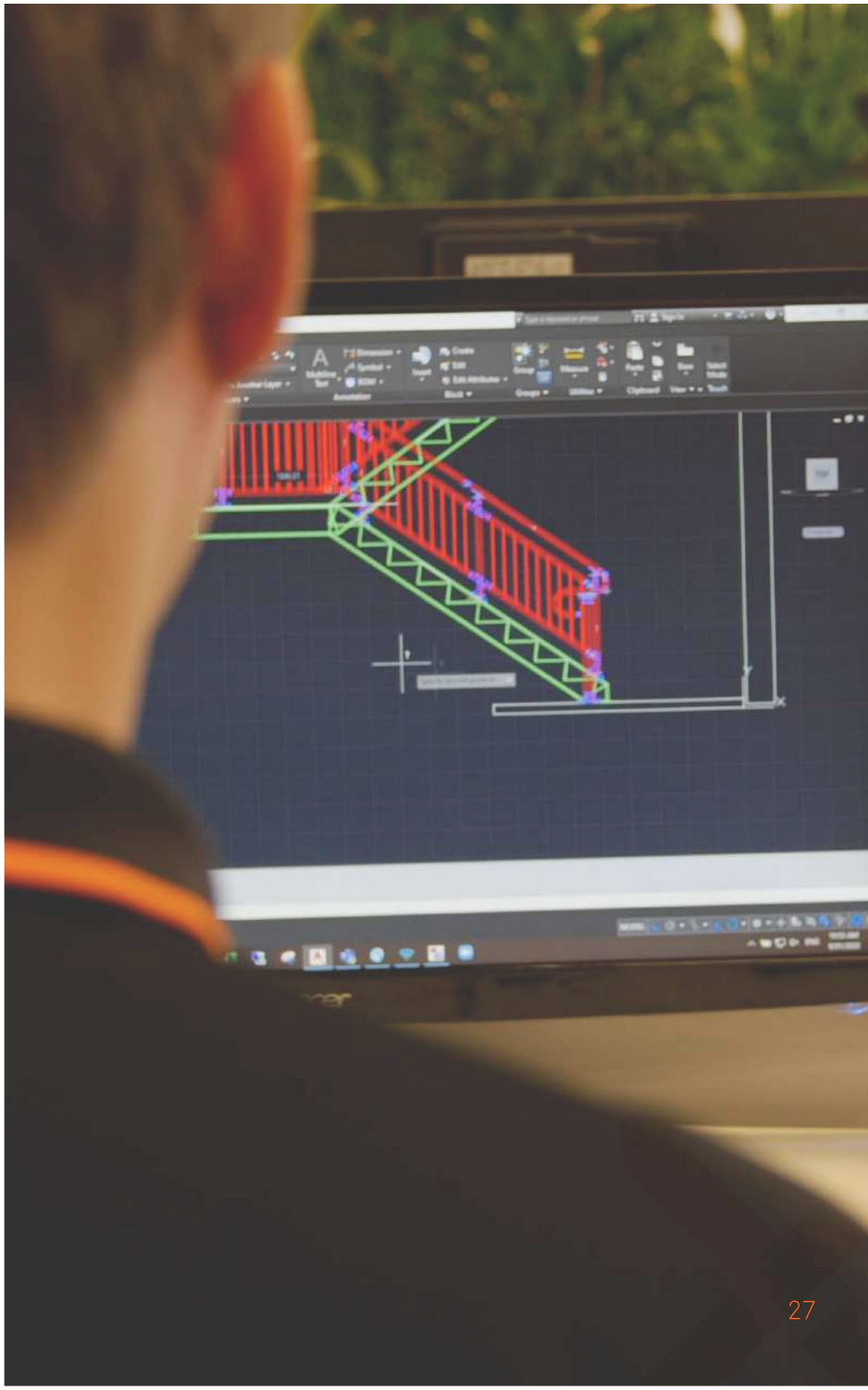
Once DI is reviewed by the project team and signed-off by a compliance certifier, the Moddex drafting team create and finalise the shop drawings.
All necessary components according to the section being installed, and then picked, packed and shipped to the site.

4

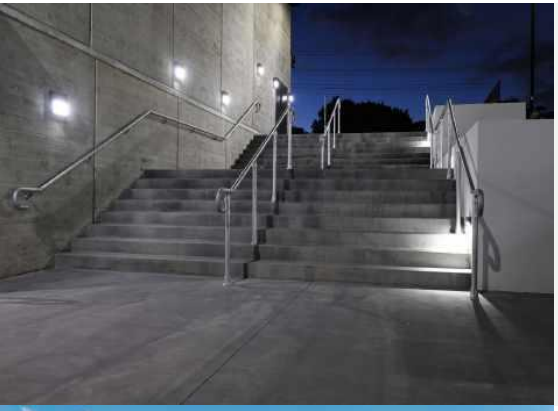


The product arrives on site with detailed drawings, allowing installers to work with fewer tools, less dust and noise; reducing their installation time.
Variations invariably come up on projects, and the benefit of a modular design means these changes can be made on the fly quickly and efficiently.

The net result of Moddex planning disciplines, innovative design and Everything Fits™ philosophy is simple – no surprises.

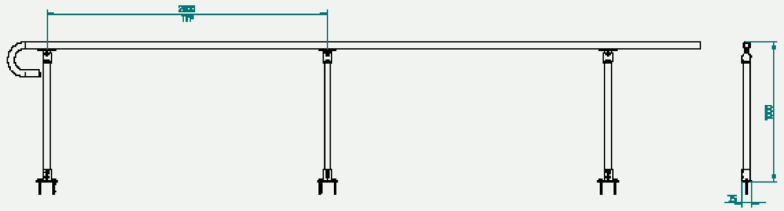


ASSISTRAIL®
CONFIGURATIONS



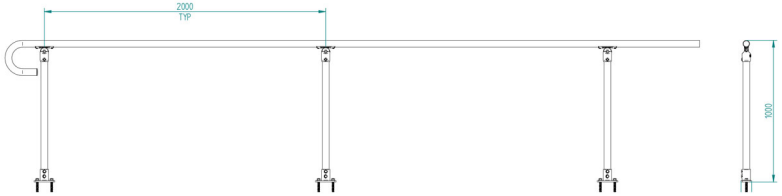
AR10

SINGLE INLINE HANDRAIL
For stairs and level applications under one metre (FFL)



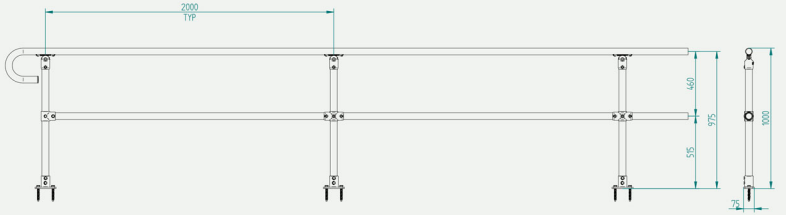
AR20

SINGLE INLINE HANDRAIL | KERBRAIL
For disabled ramps under one metre (FFL)



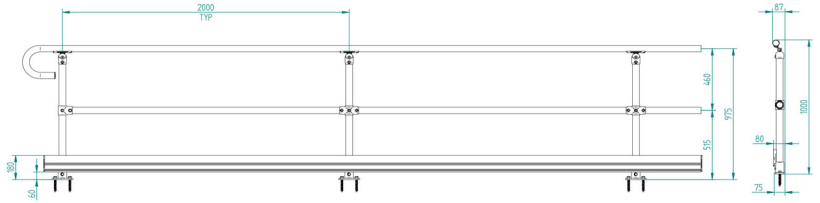
AR30

SINGLE INLINE HANDRAIL | MIDRAIL
For stairs and level applications under one metre (FFL) & midrail for extra protection



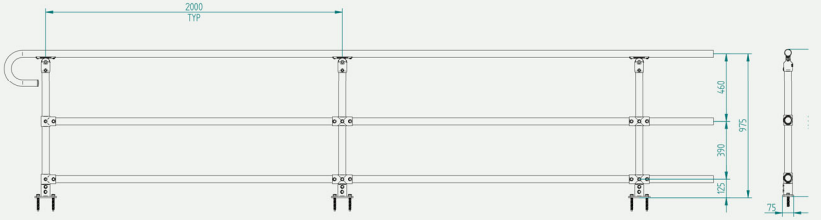
AR40

SINGLE INLINE HANDRAIL | MIDRAIL & KERBRAIL
For disabled ramps under one metre (FFL) and midrail for extra protection



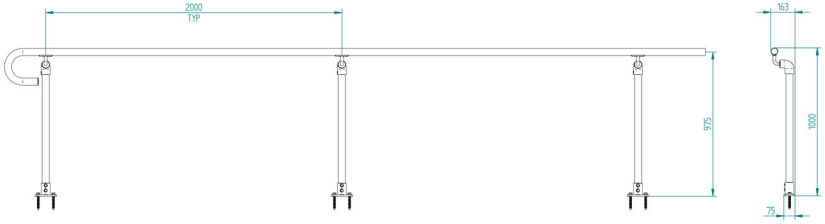
AR45

SINGLE INLINE HANDRAIL | MID & BOTTOM RAILS
For stairs and level applications under one metre (FFL)



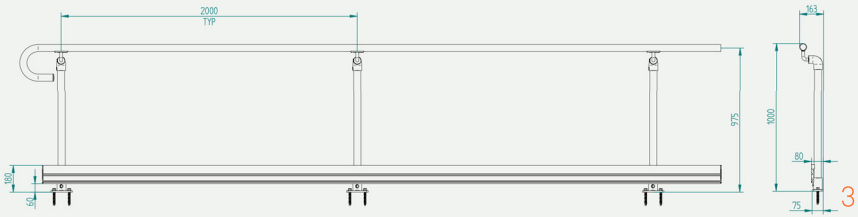
AR50

SINGLE OFFSET HANDRAIL
For stairs & level applications under one metre (FFL) with offset (often used on concrete nibs)



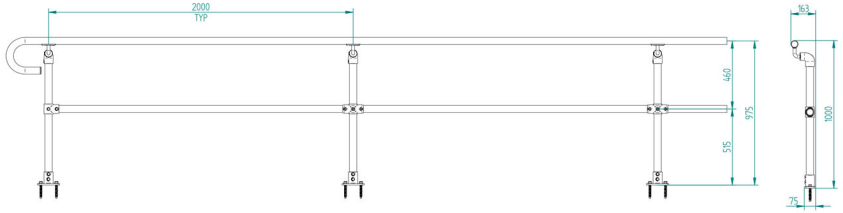
AR60

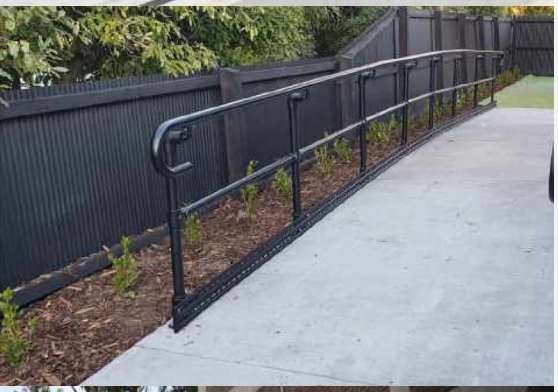
SINGLE OFFSET HANDRAIL | KERBRAIL
For disability ramps under one metre (FFL) with offset



AR70

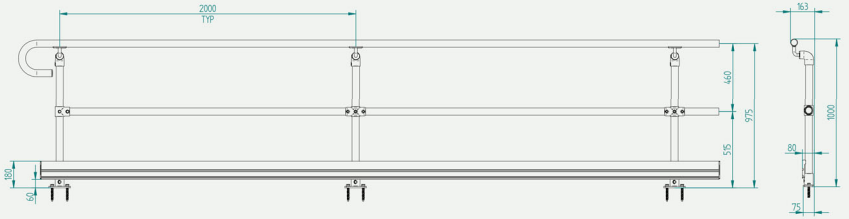
SINGLE OFFSET HANDRAIL | MIDRAIL.
For level, ramp and stair applications under one metre (FFL) and midrail for extra protection

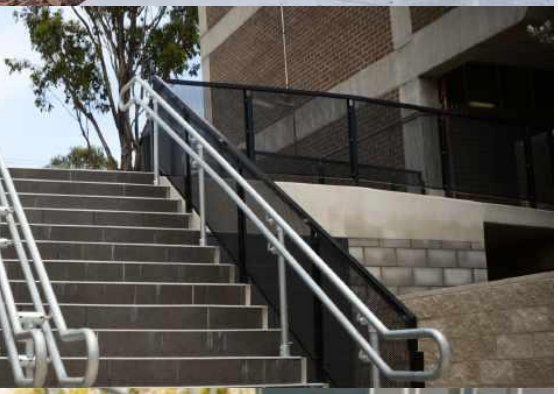




AR80

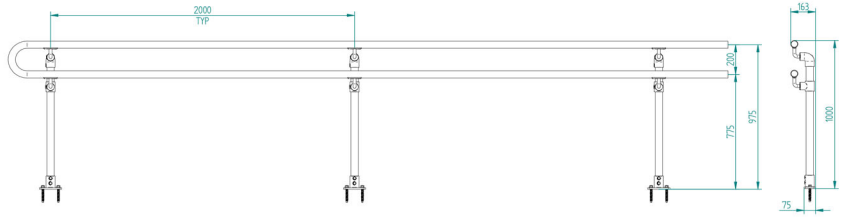
SINGLE OFFSET HANDRAIL | MIDRAIL & KERBRAIL
For disabled ramps under one metre (FFL) with offset and midrail for extra protection

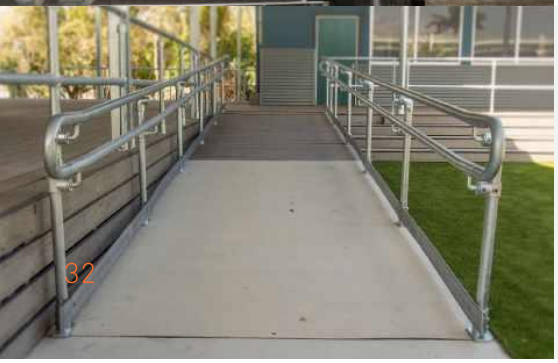




AR110

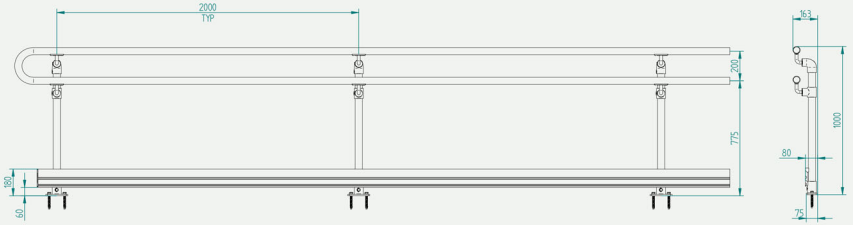
DOUBLE OFFSET HANDRAIL





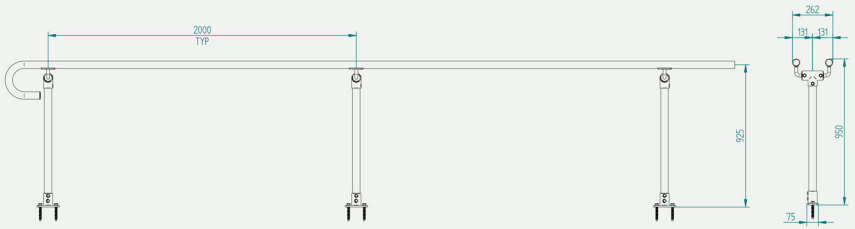
AR120

DOUBLE OFFSET HANDRAIL | KERBRAIL



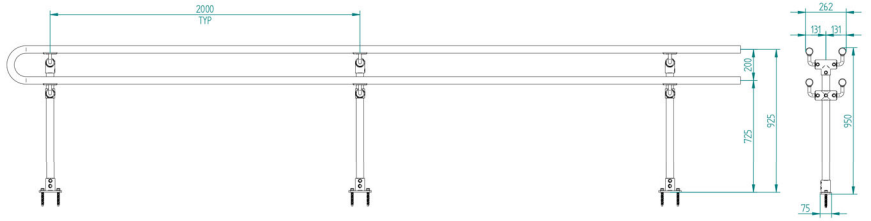
AR130

SINGLE INLINE HANDRAIL | KERBRAIL
For stairs



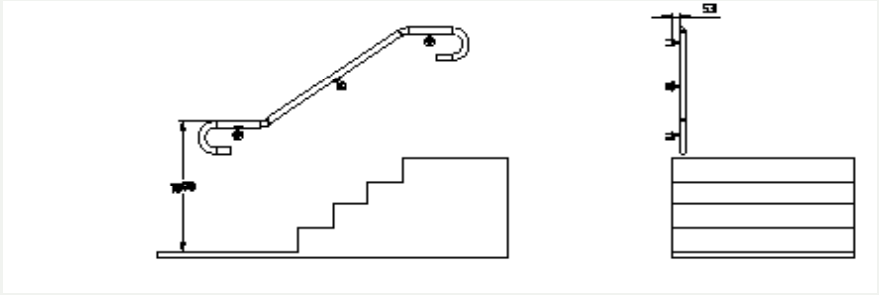
AR140

TWIN DOUBLE OFFSET HANDRAIL



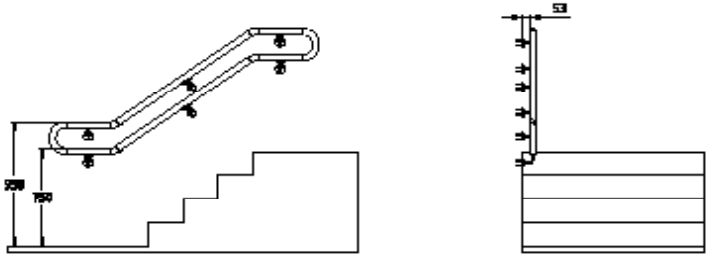
AR150

SINGLE OFFSET HANDRAIL | WALL MOUNTED
For level, ramp and stair applications with suitable substrate for mounting



AR160

DOUBLE OFFSET HANDRAIL | WALL MOUNTED

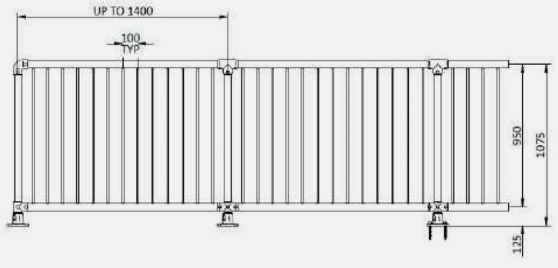


For full compliance details go to moddex.com/products/assistrail-disability-handrails

CONECTABAL®
CONFIGURATIONS

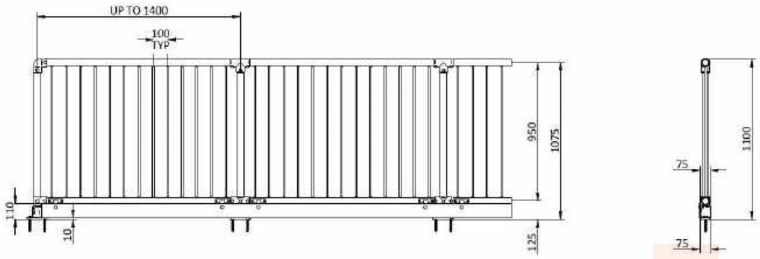
CB10

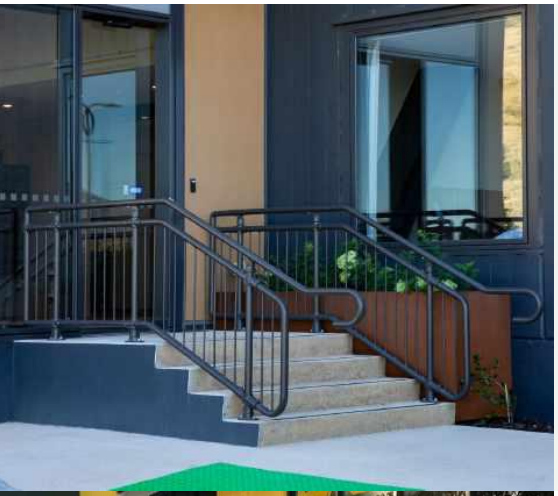
STANDARD BALUSTRADE
For level applications above one metre (FFL)



CB20

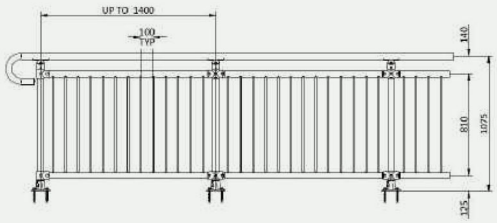
BALUSTRADE | TOEBOARD
For level applications above one metre

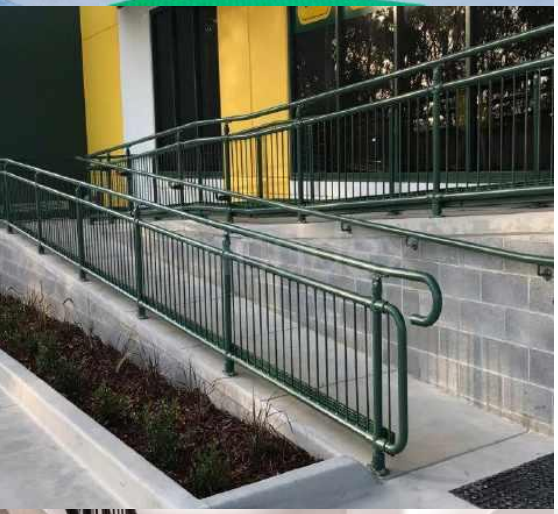




CB30

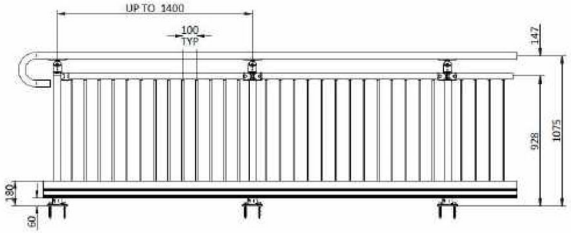
BALUSTRADE | SINGLE INLINE HANDRAIL
For level and stair applications above one metre (FFL)

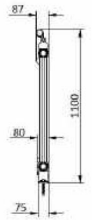


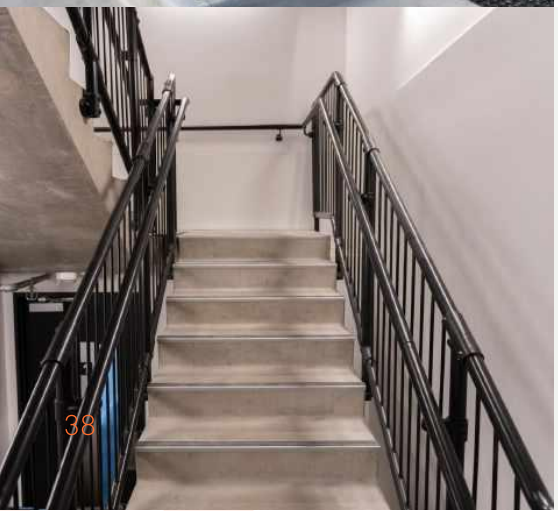


CB35

BALUSTRADE | SINGLE INLINE HANDRAIL & KERBRAIL
For level and ramp applications above one metre (FFL)

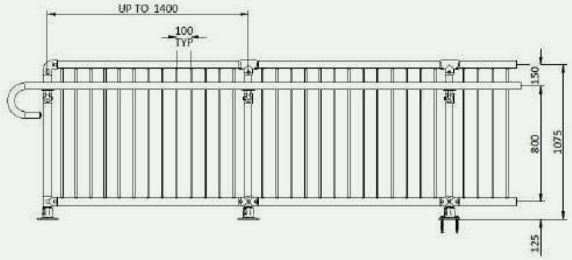






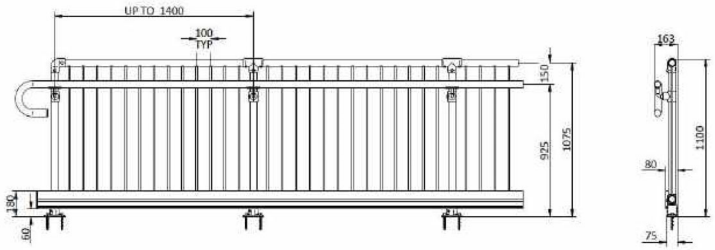
CB40

BALUSTRADE | SINGLE OFFSET HANDRAIL
For level and stair applications above one metre (FFL)



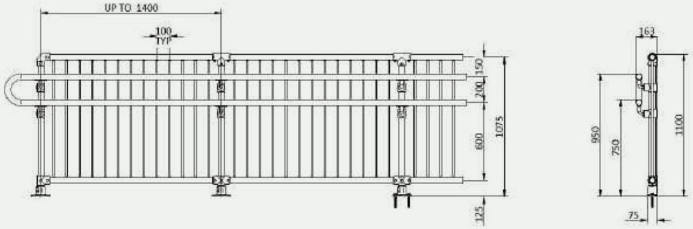
CB45

BALUSTRADE | SINGLE OFFSET HANDRAIL & KERBRAIL
For level and ramp applications above one metre (FFL)



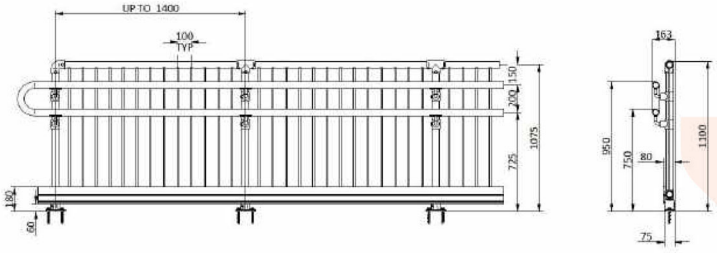
CB50

BALUSTRADE | DOUBLE OFFSET HANDRAIL



CB55

BALUSTRADE | DOUBLE OFFSET HANDRAIL & KERBRAIL

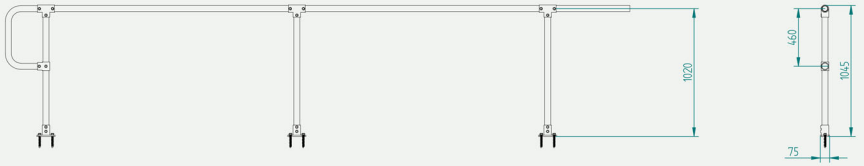


For full compliance details go to moddex.com/products/conectabal-commercial-balustrades/

TUFFRAIL®
CONFIGURATIONS

TR10

SINGLE TOP RAIL
For level and rake

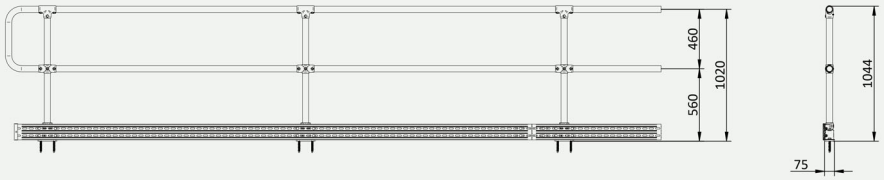


TR20

TOP & MIDRAIL
For level, rake or stair applications with no access beneath, or where there is a permanent structure within 10mm of the edge

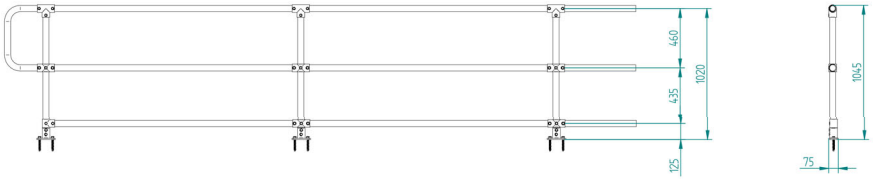
TR25

TOP & MID RAIL | TOEBOARD. FEATURING TUFFGARD TOEBOARD
For level or rake applications with open access beneath, where an object could fall from a platform, landing or structure



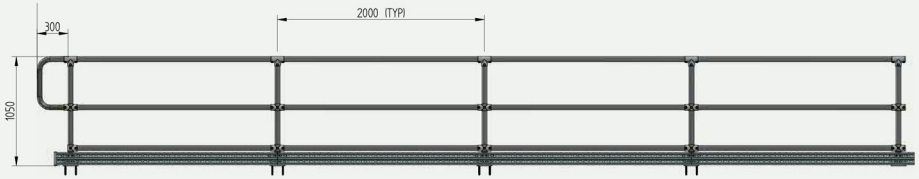
TR30

TOP | MID & BOTTOM RAILS
For level, rake or stair applications with no access beneath, or where there is a permanent structure within 10mm of the edge – with a bottom rail for additional fall protection



TR35

TOP | MID & BOTTOM RAILS WITH TOEBOARD
For level or rake applications with no access beneath, or where there is a permanent structure within 10mm of the edge – with a bottom rail for additional fall protection

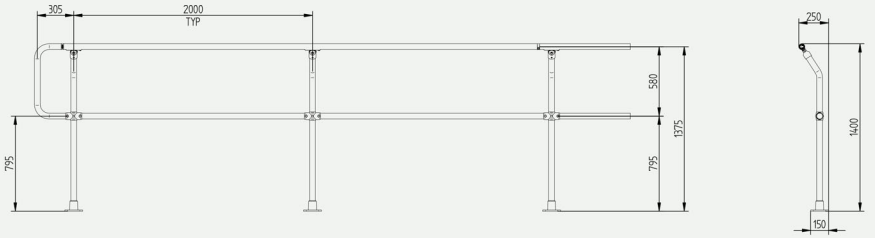


For full compliance details go to moddex.com/products/tuffrail-industrial-handrails/

BIKESAFE®
CONFIGURATIONS

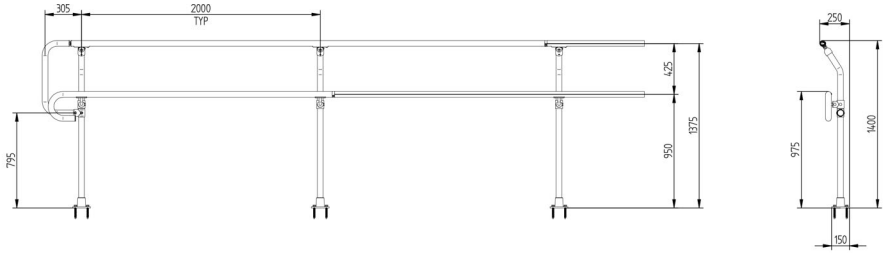
BS20

TOP RAIL | MIDRAIL
A standard partial barrier with smooth deflection rail for Austroads and NZTA compliance.



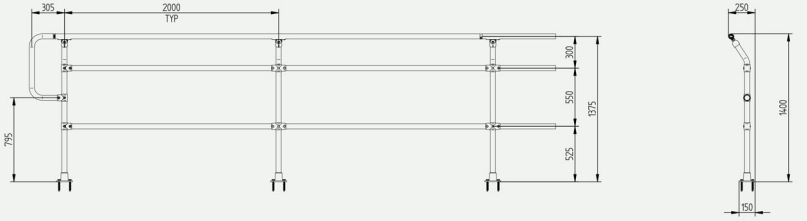
BS25

TOP RAIL | HANDRAIL
Bikeway barrier with offset top rail and handrail for level and rake.



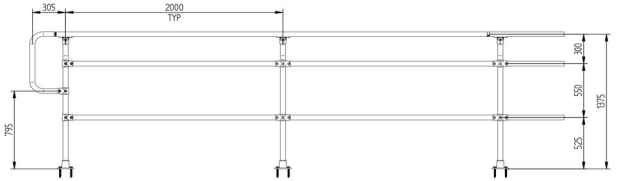
BS30

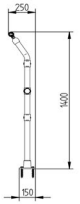
TOP RAIL | MIDRAIL & BOTTOM RAIL
A partial barrier with smooth deflection rail for Austroads and NZTA compliance and bottom rail for added protection.



BS35

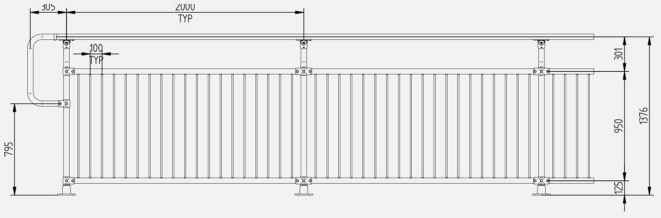
TOP RAIL | HANDRAIL & BOTTOM RAIL
Bikeway barrier with offset top rail, handrail and bottom rail for level and rake.

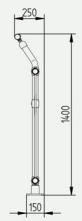




BS40

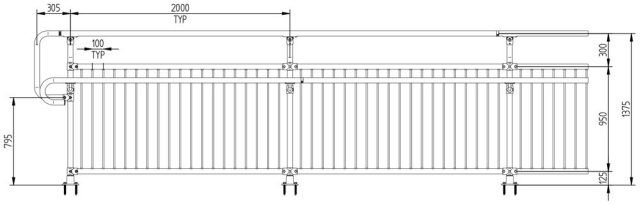
TOP RAIL | HANDRAIL & BALUSDRADE INFILL
A standard full barrier with smooth deflection rail for Austroads and NZTA c ompliance.

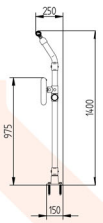




BS45

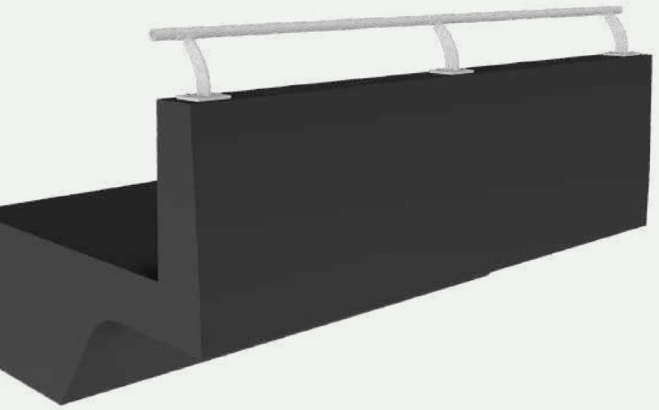
TOP RAIL | HANDRAIL & BALUSTRADE INFILL
A full barrier with smooth deflection rail, incorporating a handrail for additional assistance.





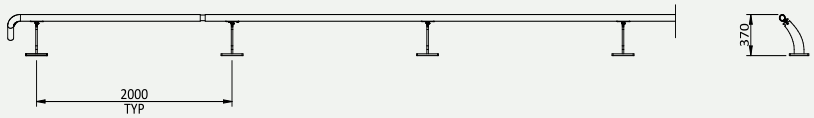
For full compliance details go to moddex.com/products/bikesafe-bikeway-barriers/

BRIDGERAIL™
CONFIGURATIONS

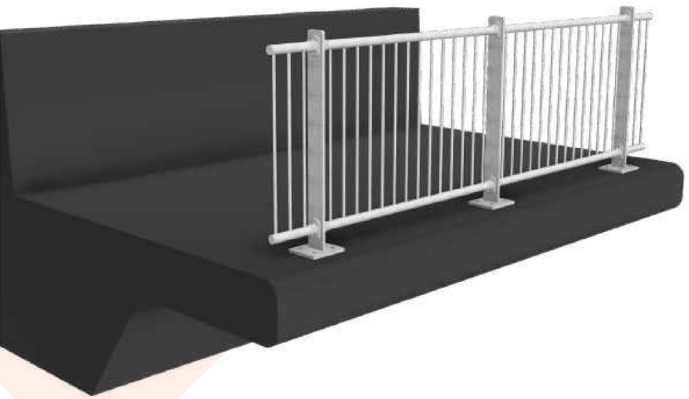


BR10

AS5100.2 CL12.5 AND NZTA BRIDGE MANUAL B6.4* COMPLIANT OFFSET CYCLE RAIL
Level - Standard 2.0 Mtr Spacing



*Excludes where the road controlling authority requires the barrier to restrain crowds or people under panic conditions



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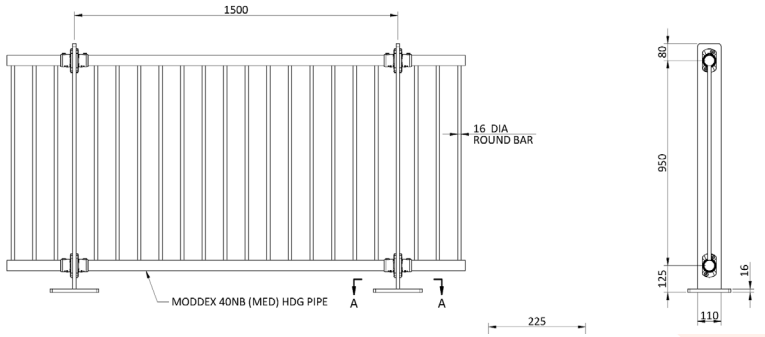
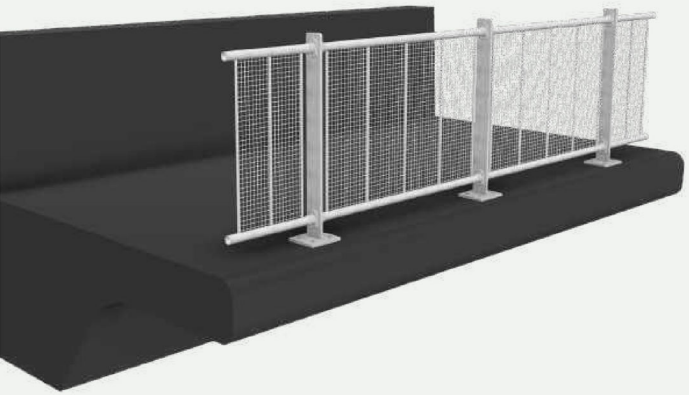


*Excludes where the road controlling authority requires the barrier to restrain crowds or people under panic conditions



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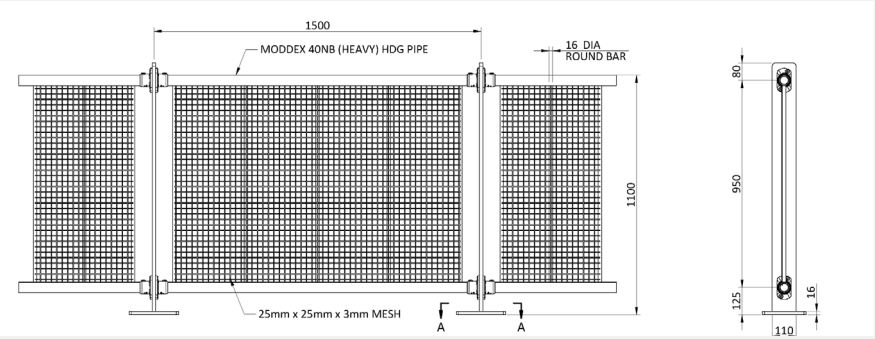
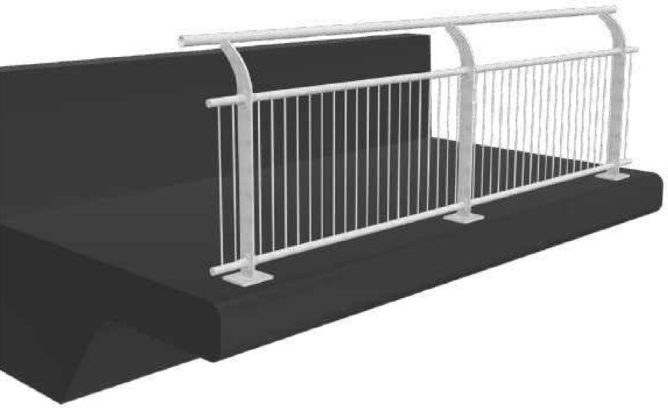


*Excludes where the road controlling authority requires the barrier to restrain crowds or people under panic conditions



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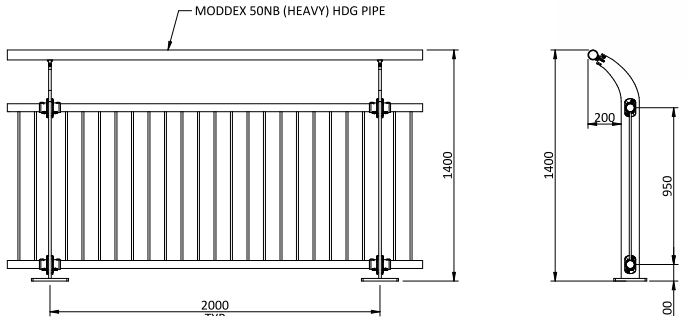

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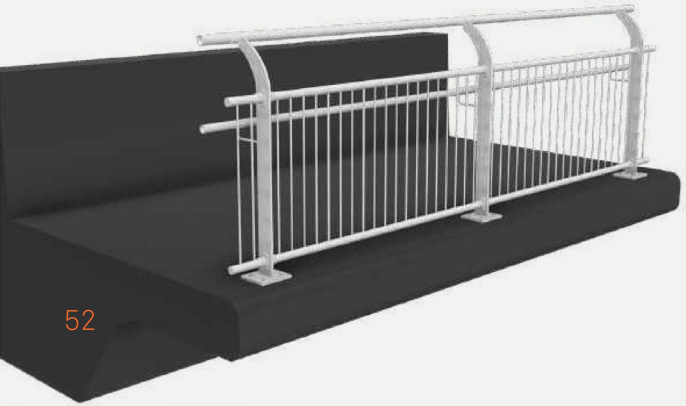

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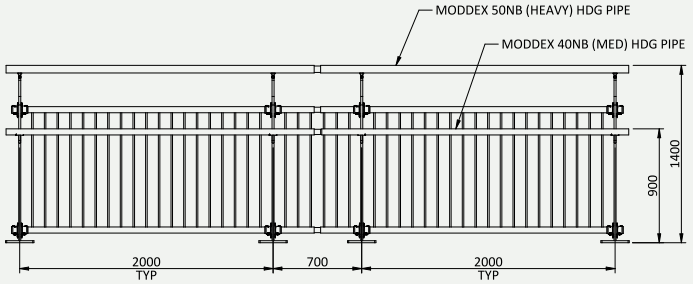

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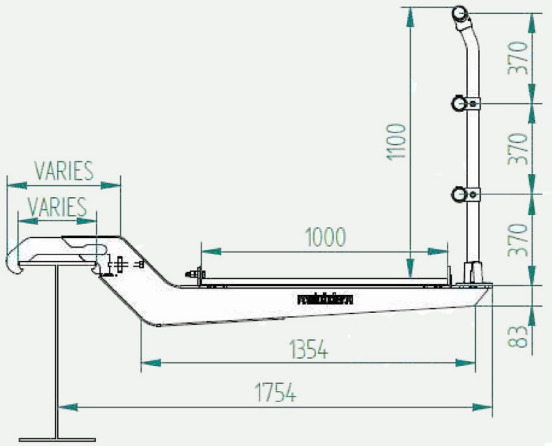
KLIPTREAD™
CONFIGURATIONS

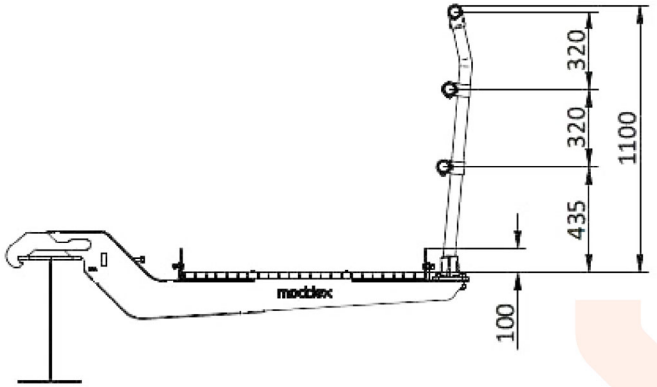
KT30

CLIP-ON CANTILEVER ARM WITH A WALKWAY | TOP, MID & BOTTOM RAIL
Patent Pending 767353



KT35

CLIP-ON CANTILEVER ARM WITH A WALKWAY | TOP, MID & BOTTOM RAIL WITH KICKPLATE
Patent Pending 767353



SECTION A-A
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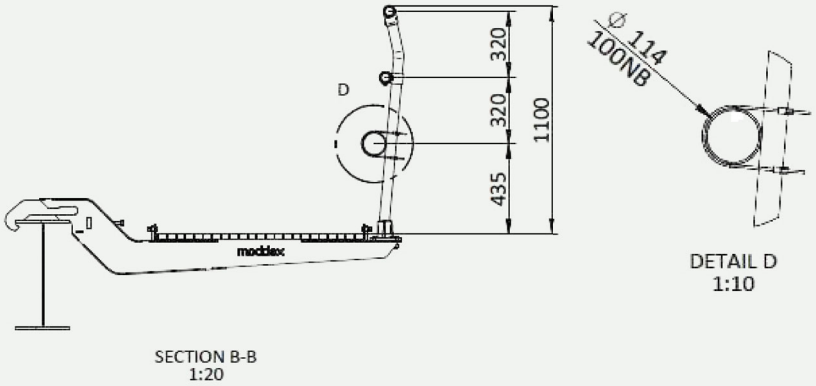
KT40

CLIP-ON CANTILEVER ARM WITH A WALKWAY | TOP & MID RAIL WITH COMMS TUBE
Patent Pending 767353



SECTION B-B
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DETAIL D
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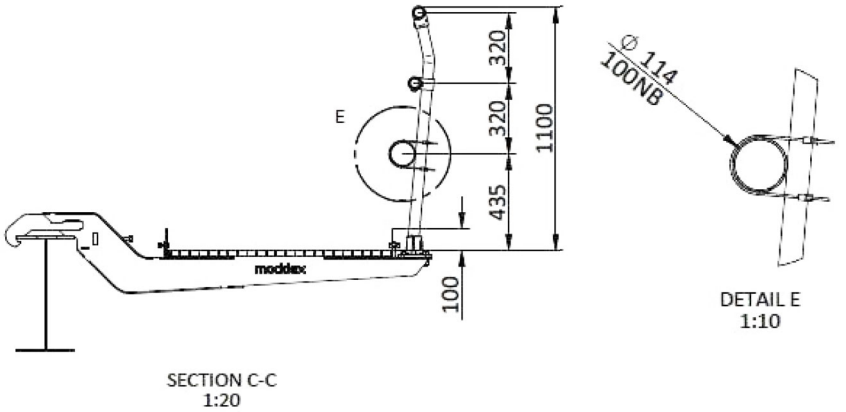
KT45

CLIP-ON CANTILEVER ARM WITH A WALKWAY | TOP & MID RAIL WITH COMMS TUBE & KICKPLATE
Patent Pending 767353



SECTION C-C
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DETAIL E
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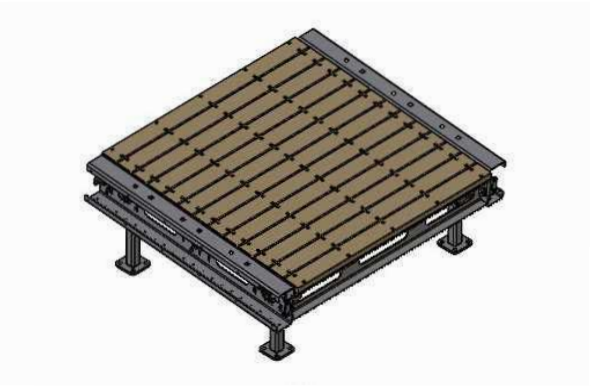
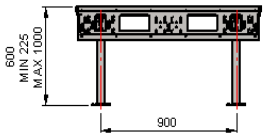
EZIBILT™
CONFIGURATIONS

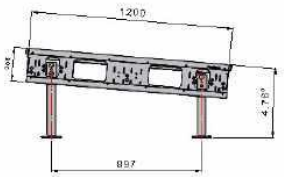
Ezibilt can be put together with a combination of the following configurations:

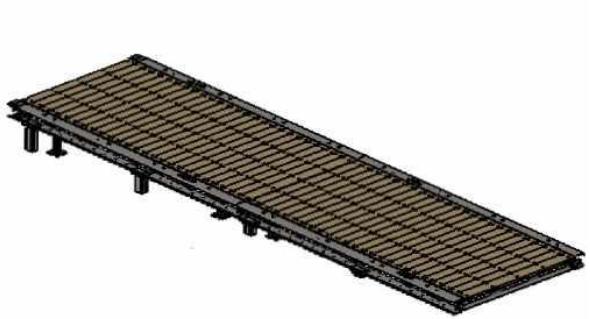


EB110

1200MM PLATFORM MODULE
Available as a level or ramp module

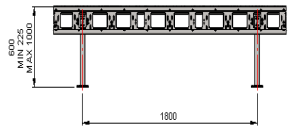


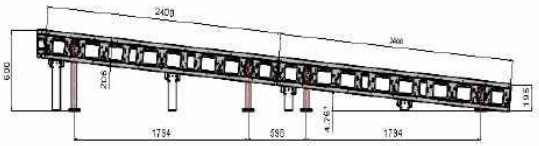




EB120

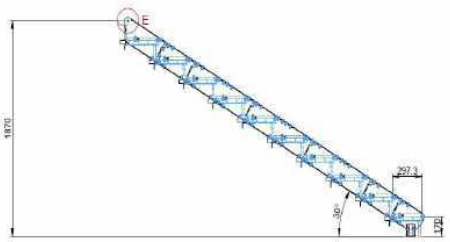
2400MM PLATFORM MODULE
Available as a level or ramp module





EB120

STAIR MODULE



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NOTES

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Appendix 6.3 – Alternative Bridge Crossing

Disclaimer.
Boundary information and photographic imagery has been imported from external sources. Areas and dimensions may be subject to scale error. Use of this drawing for other purposes is at the user's risk.

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GENERAL NOTES
1. Coordinates in terms of : NZTM 2000.
2. Elevations in terms of : NA
3. Contour interval is : NA

15 0 75m
SCALE 1:1500

NO	DATE	REVISION	BY	CHK	APP
.	.	.	.	.	.

PRINCIPAL

SURVEYED	NA	-
DRAWN	P.FLAUGERE	20/08/2024
CHECKED	P.PIERARD	22/08/2024
APPROVED		.

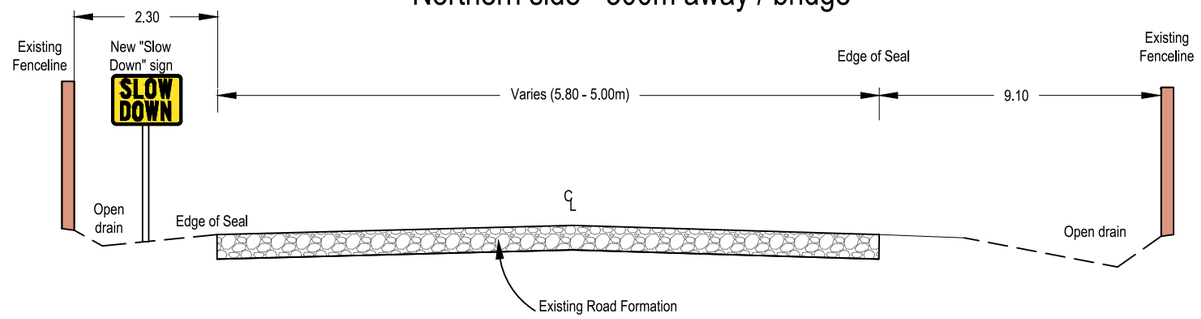
SCALE 1:1500 @A3 | ORIGINAL SIZE A3

TITLE
TAT CHARITABLE TRUST - MAIN TRACK
BRIDGE CROSSING CONCEPT
LOCATION PLAN

DRAWING No J2004 - 01 - 001
REVISION 0

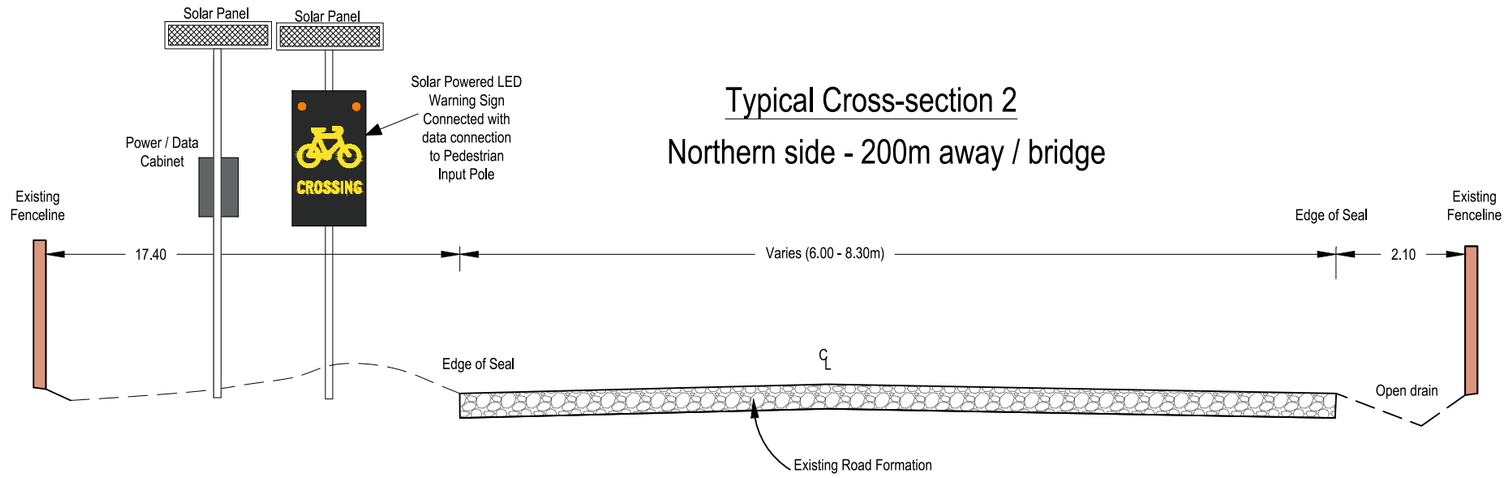
Typical Cross-section 1

Northern side - 300m away / bridge



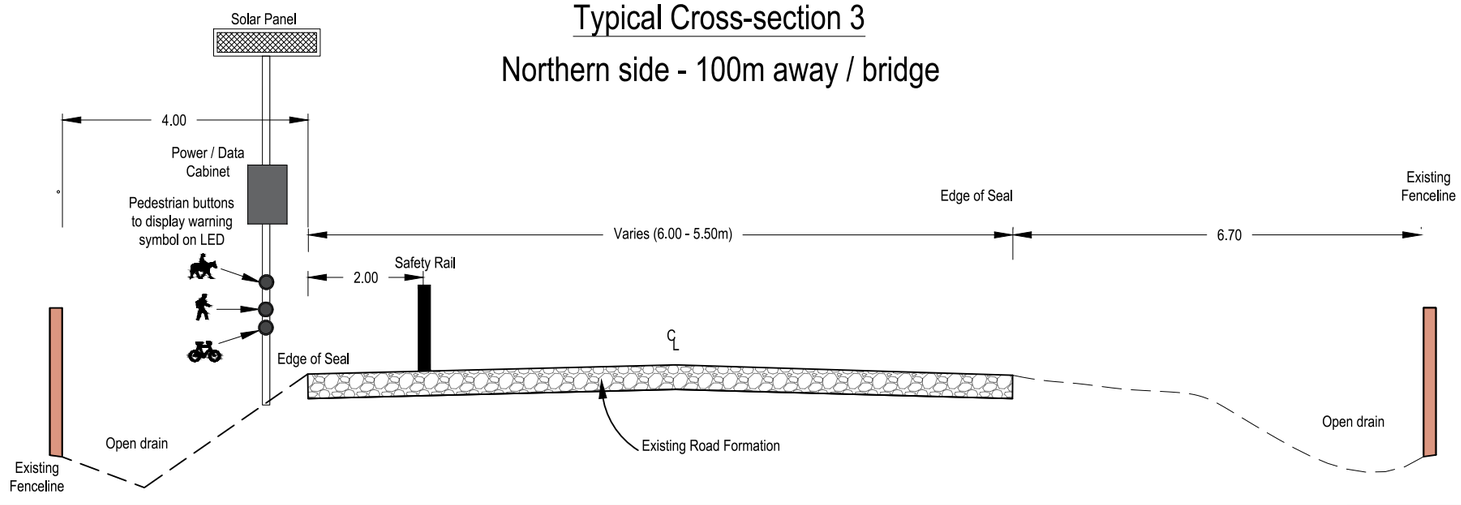
Typical Cross-section 2

Northern side - 200m away / bridge



Typical Cross-section 3

Northern side - 100m away / bridge



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GENERAL NOTES
1. Coordinates in terms of : NZTM 2000.
2. Elevations in terms of : NA
3. Contour interval is : NA

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SCALE 1:100

NO	DATE	REVISION	BY	CHK	APP

PRINCIPAL

SURVEYED	NA	-
DRAWN	P.FLAUGERE	20/08/2024
CHECKED	P.PIERARD	22/08/2024
APPROVED		-

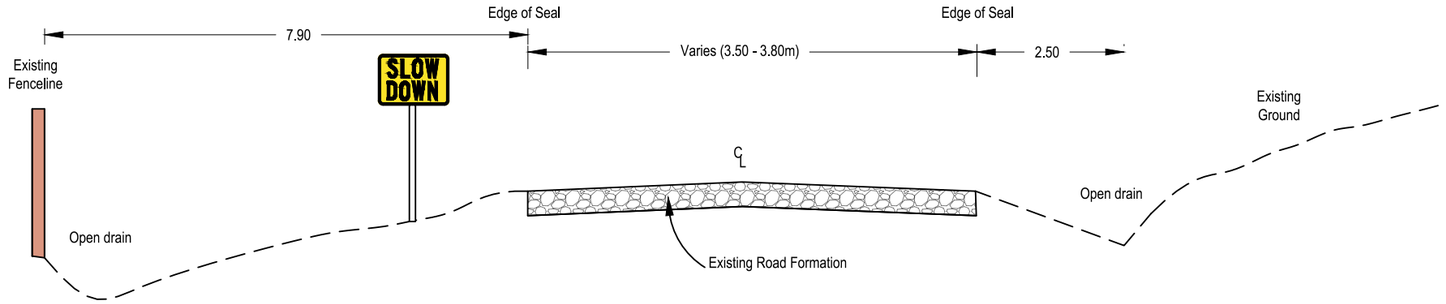
SCALE 1:100 @A3 | ORIGINAL SIZE A3

TITLE
TAT CHARITABLE TRUST - MAIN TRACK
BRIDGE CROSSING CONCEPT
CROSS SECTIONS - NORTHERN SIDE / BRIDGE

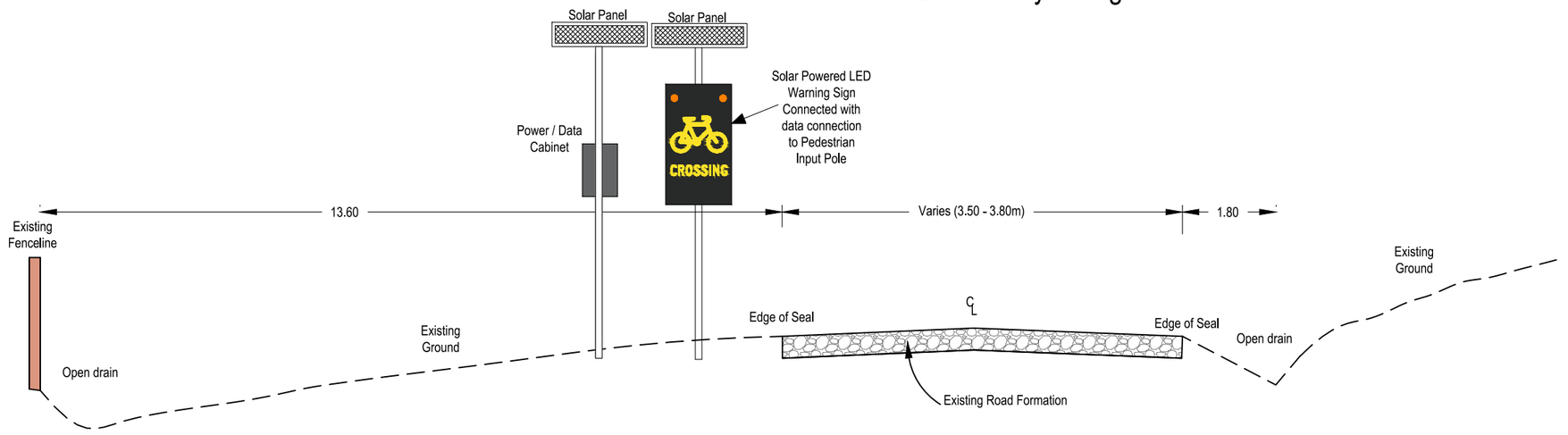
DRAWING No J2004 - 01 - 002

REVISION 0

Typical Cross-section 4
Southern side - 300m away / bridge



Typical Cross-section 5
Southern side - 200m away / bridge



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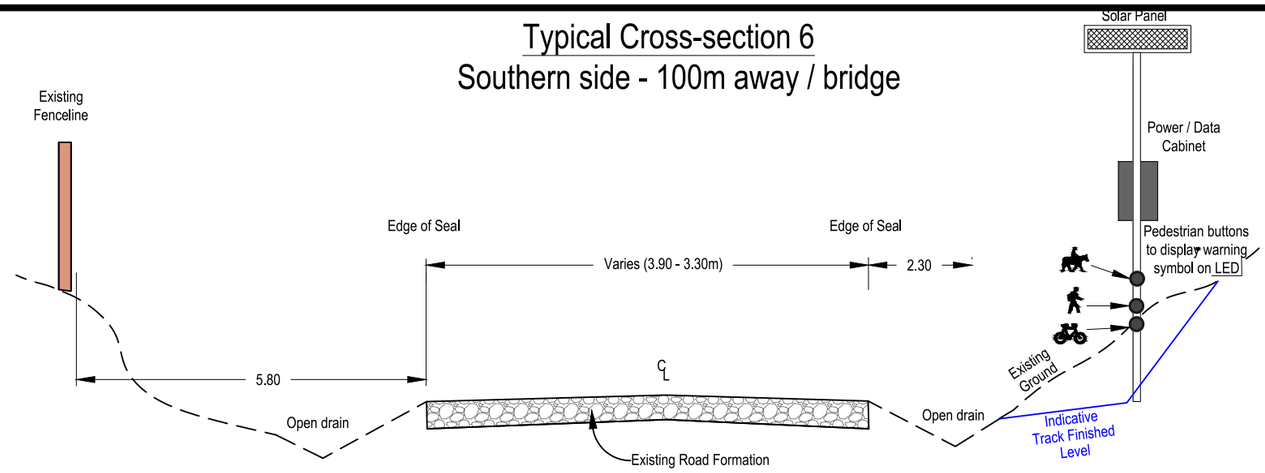
Southern side - 100m away / bridge



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GENERAL NOTES
1. Coordinates in terms of : NZTM 2000.
2. Elevations in terms of : NA
3. Contour interval is : NA

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SCALE 1:100

NO	DATE	REVISION	BY	CHK	APP

PRINCIPAL

SURVEYED	NA	-
DRAWN	P.FLAUGERE	20/08/2024
CHECKED	P.PIERARD	22/08/2024
APPROVED		-

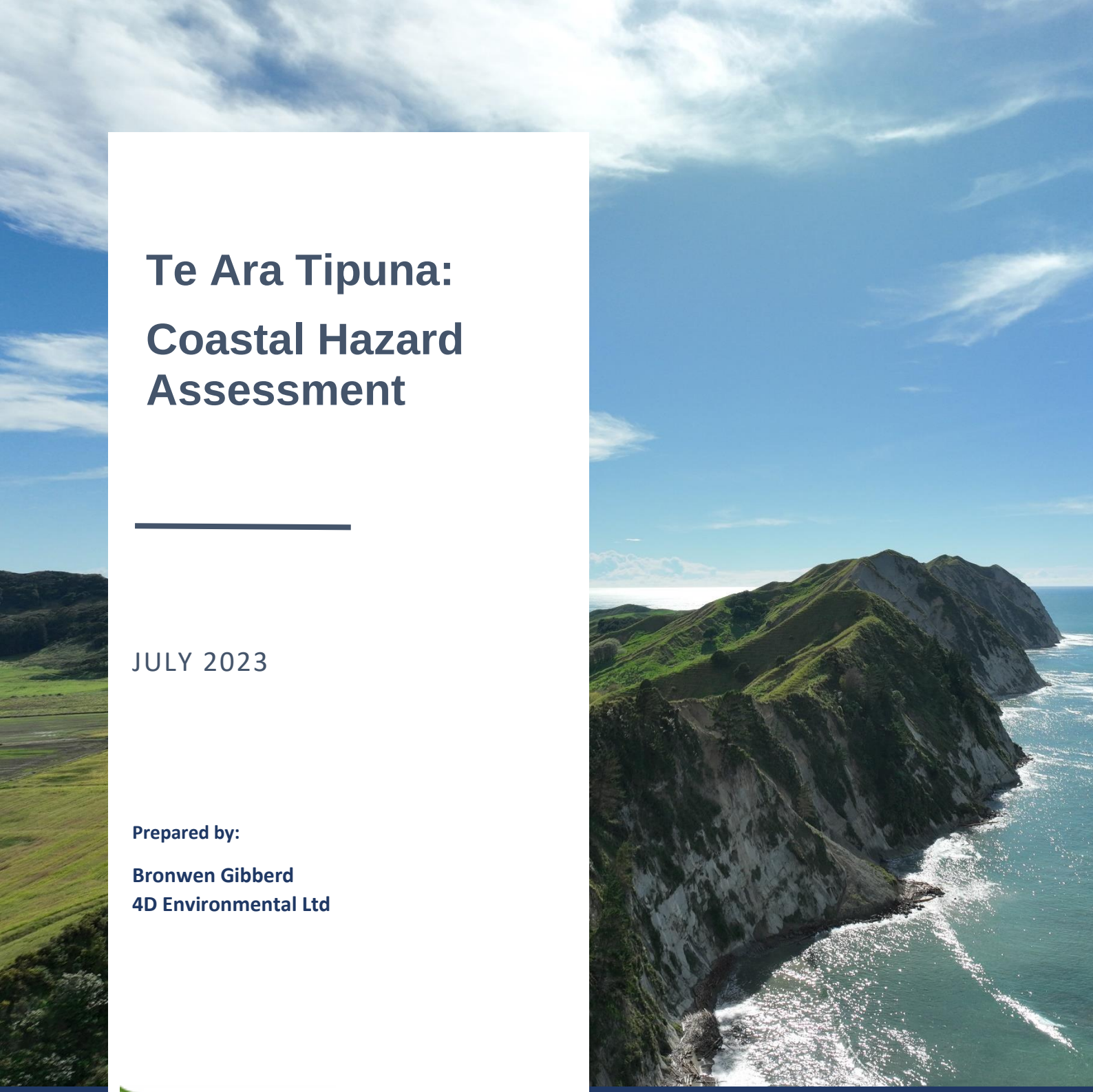
SCALE 1:100 @A3
ORIGINAL SIZE A3

TITLE
TAT CHARITABLE TRUST - MAIN TRACK
BRIDGE CROSSING CONCEPT
CROSS SECTIONS - SOUTHERN SIDE / BRIDGE

DRAWING No J2004 - 01 - 003
REVISION 0

Appendix 8:

Coastal Hazards Assessment



Te Ara Tipuna:

Coastal Hazard Assessment

JULY 2023

Prepared by:

Bronwen Gibberd
4D Environmental Ltd

4D ENVIRONMENTAL LIMITED

Project Background

The Te Ara Tipuna project aims to establish a continuous interconnected network of walking, cycling and bridle trails around the East Cape, from Gisborne to Ōpōtiki. The objective is to provide a network of accessways for local communities and visitors, and to promote the regeneration of Ngati Porou and Te Whanau-a-Apanui through physical and cultural connections and economic opportunities.

The proposal includes approximately 500 km of trail, including roadside, cliff top, beach, farm and forest sections. The proposed trail is close to the coast at many of the beaches, and in places the walking and bridle trail follow the beach or dunes (Figure 1).

This assessment considers what is known about coastal processes and hazards on the Gisborne and Ōpōtiki District shorelines and evaluates the potential effects of the trail for the purposes of the consent application. The report also highlights potential coastal issues where consents may not be required, including safety for trail users, potential risk to the trail due to erosion, public access and coastal flooding.

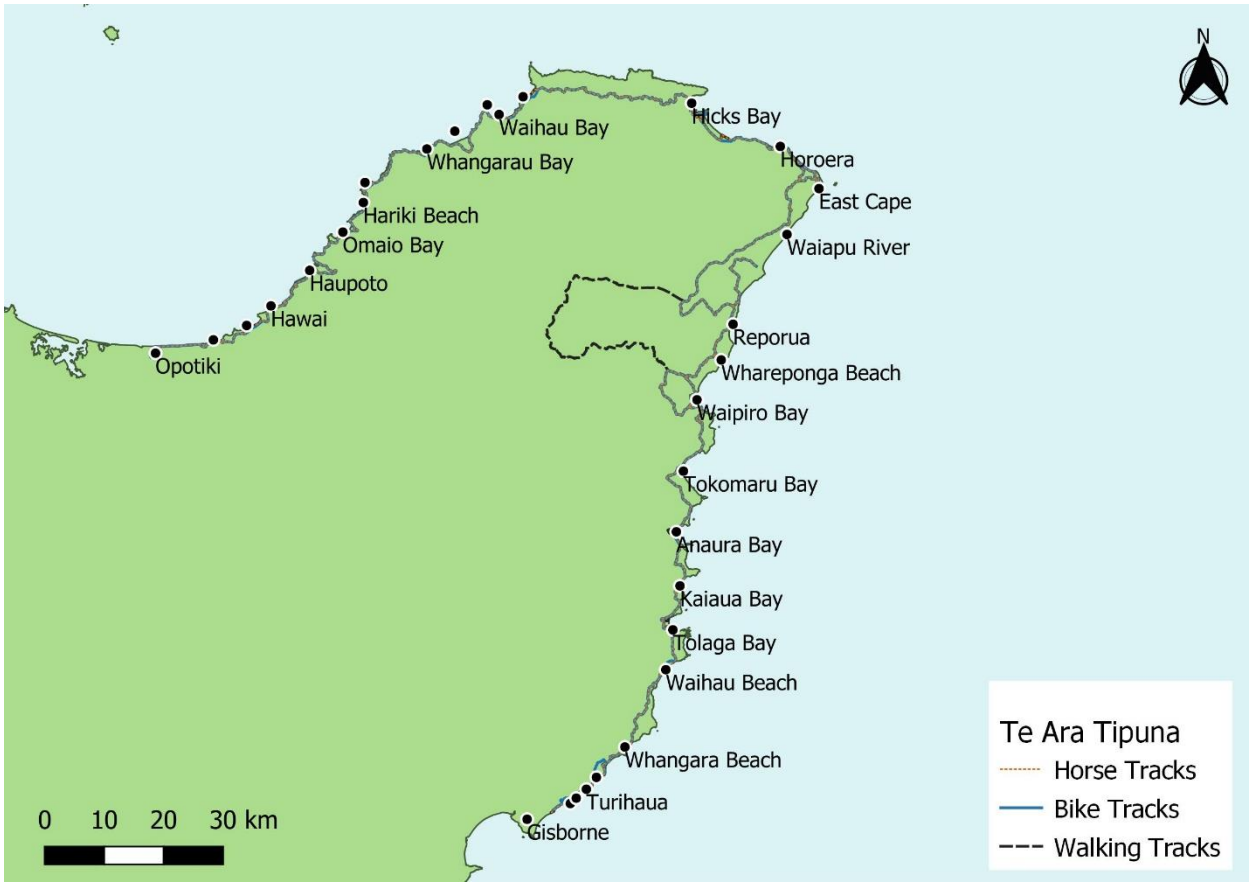


Figure 1: Proposed route of Te Ara Tipuna, with key coastal locations.

Project Details

The shared walk, cycle and bridle trail will be approximately 4.5 m wide and is constructed in most areas as a grassed or compacted dirt/lime track marked with way finder posts. In a small number of locations (to be determined), the trail will be constructed to a higher standard, for example:

- raised wooden boardwalk for walkers and cyclists, with adjacent track for horses,
- ground level boardwalk for walkers and cyclists, compacted lime track for horses, or
- compacted gravel track (4.5 m wide).

The width and construction of the trail will be modified to suit the local setting. In coastal environments, the following assumptions are made when considering the likely effects of the proposed works:

- in dune areas the trail will be a simple track clearly marked with way finders to manage access
- where the width of the coastal reserve is not sufficient to provide for the full width (4.5 m) of shared trail, the width of the trail will be reduced
- on low volume roads, the road corridor maybe used where there is not sufficient width of land or beach to construct a full trail seaward of the road.

The trail utilises existing tracks where it is practicable to do so. There are some stretches of existing track that are potentially vulnerable to coastal hazards. Construction of new track in coastal hazard areas has been avoided where there is a suitable alternative alignment.

This report applies existing knowledge. The coastline between Gisborne and Ōpōtiki has been the focus of many coastal hazard assessments. There has been no additional investigation made to further quantify coastal hazards, except for observations of historic photography where it has been useful. Extreme weather events and roading damage in the summer of 2023 prevented inspection of the proposed route, so this assessment has been undertaken as a desktop exercise, supported by field observations made by those who were able to access the coast.

Coastal hazards change over time at any given location. The landward extent of a coastal erosion hazard is influenced by long term shoreline change trends, and increasingly by the impact of accelerating sea level rise. Coastal inundation hazard is also expected to increase over time with projected sea level rise. This assessment assumes a trail lifespan of 50 years for the consideration of coastal hazards.

Coastal Processes and Environment

Large stretches of Tairāwhiti coastline are characterised by high cliffs (up to 100 m) formed from weak sedimentary rocks. Rock properties and bedding angles vary greatly, which influences erosion rates, landslide susceptibility and slope angle development. Extensive sand beach systems exist between cliff headlands, with numerous river and stream entrances. These beaches are dynamic shorelines and in many areas are experiencing slow ongoing erosion. Beaches are backed by dune systems or low-lying coastal plains of varied width and steeply rising land. The coastal margin is fronted by a rocky shore platform in some areas (including Tokomaru Bay and the East Cape area). The shore platform is covered in some areas by a narrow beach and backed by a low-lying coastal plain.

The Ōpōtiki coastline is also highly varied, with a mixture of exposed sandy beaches backed by wide coastal plains, narrow sand/gravel beaches with rocky shore platforms, and mixed sand gravel barriers. Multiple rivers supply large volumes of sediment to the coastline. Beaches are separated by sedimentary rocky outcrops.

Small settlements exist at many of the beaches, but most of the Tairāwhiti shoreline is backed by coastal reserve and road, or by rural land. Significant townships exist at Tolaga Bay and Tokomaru Bay. The Ōpōtiki shoreline is also largely undeveloped, with numerous small settlements located on the coast but no major urban centres.

The following sections describe the main shoreline types and broadly summarise the key processes affecting these environments, as well as their likely response to future sea level rise. Appendix 1 provides an outline of current national recommendations for future sea level rise projections in New Zealand.

Sandy Beaches

Beaches are dynamic mobile shorelines that are constantly responding and adjusting to coastal processes and are particularly sensitive to the effects of human activities that influence sediment movement or hydrodynamics. Sandy beach shorelines undergo dynamic changes driven by storms, seasonal changes, river mouth dynamics and fluctuations in sediment supply. During storm events, sand is eroded from the beach and (sometimes) the dune and deposited offshore. During calm periods, this sediment is slowly worked back onto the beach by natural coastal processes. As a high tide beach is reformed, sand is blown from the beach and captured by vegetation to rebuild the dune.

Dunes are part of the active beach system and provide a buffer against erosion as well as often serving as a natural defence against coastal inundation. Dune environments are fragile and rely on vegetation to catch and hold wind-blown sand to remain stable and to rebuild following a period of erosion. In many developed areas, these environments are heavily degraded, and this can adversely affect the natural balance of the dynamic beach environment. Dunes are particularly sensitive to disturbance from earthworks and from increased foot traffic.

Natural climatic cycles and variability can alter weather patterns and the frequency and severity of storm events over decadal and multidecadal timeframes. This can drive cycles of erosion and accretion that are larger than that seen from individual storms. Studies of shoreline change on the Tairāwhiti coastline have indicated that sandy beach systems typically undergo dynamic fluctuations of 10-30 m over periods of years to decades, with larger fluctuations near stream and river mouths. Similar multidecadal dynamic changes are seen at beaches on the Ōpōtiki coastline.

Natural and human factors such as net sediment budget and interruptions to sediment transport can drive longer-term progressive shoreline change (erosion or shoreline advance). Many Tairāwhiti beaches are dynamically stable, undergoing shoreline fluctuations over decadal time scales with little net change. At some sites, there is a long-term trend (typically less than 1 m per year) for shoreline retreat or progradation.

Ōpōtiki studies have noted an overall trend for erosion along the coast from Hikuwai to Opape. Most of the mixed sand gravel barriers showed a long-term accretionary trend due to the local sediment supply from the adjacent river mouths. The narrow, mixed sand gravel beaches typically have much less sediment supply and are relatively stable, though in some areas are experiencing long term erosion.

Future Sea Level Rise Effects

The impact of future accelerating sea level rise on beaches will depend on local dynamics, and particularly on sediment supply. In the absence of a strongly positive sediment budget, accelerated sea level rise is expected to slow or even reverse long term accretion. Sea level rise is likely to exacerbate erosion rates on currently retreating shorelines. While there are many possible factors influencing the way that a coastline might respond, the most broadly accepted conceptual model is that the active beach profile (including the nearshore, beach and dune) will translate and reform upwards and

landwards in response to sea level rise. The horizontal movement in the shoreline depends on the natural beach slope and is expected to be more significant on wide dissipative sand beaches than steeper narrow beaches. This pattern of change may not occur where there is a large sediment supply, strong alongshore sediment transport or other complicating factors such as the presence of a rocky shore platform.

Gravel Beaches and Barriers

Gravel beaches differ from sandy beaches in terms of morphological features and mechanisms of erosion. Gravel and mixed sand-gravel beaches are typically backed by a "storm berm" which is formed when high energy waves deposit material at the top of the beach slope. Waves overtop the storm berm during extreme events and sediments are deposited on the landward side in a process is known as "rollover". Some gravel is also eroded from the beach face and deposited low on the beach profile. During calm conditions, gravel can be transported up the beach face and form small berms. Although gravel beaches do experience dynamic fluctuations in shoreline position, these tend to be smaller than those observed at exposed sandy beaches. Where gravel beach barriers enclose river mouths these areas can be highly dynamic and complex.

In some areas, narrow mixed sand gravel beaches are seen landward of a rock reef, usually perched on a rocky platform and backed by higher grassed banks formed from sand and gravel deposits. These beaches are somewhat sheltered by the offshore reef and are less dynamic but are generally located away from major sediment supply and can be slowly eroding.

Future Sea Level Rise Effects

Coastal hazard assessments have assumed that accelerating sea level rise will drive shoreline retreat at gravel beaches due to berm rollover. Due to the relatively steep beach profile of mixed sand/gravel and gravel beaches, the horizontal retreat of these shorelines in response to sea level rise is likely to be less than at sandy beaches. Many factors will influence the response of coastlines close to major river entrances to future sea level rise, including changes in catchment management, rainfall, storm patterns and sediment supply.

Cliffs

Cliffs erode as a slow and continual process and do not undergo periods of episodic erosion and rebuilding like unconsolidated beach shorelines. Cliffs erosion has two components; gradual retreat of the cliff toe and face by marine and weathering processes, and episodic slope failures that relate to cliff lithology and geological structure.

Rates of erosion at the toe depend on the geology and exposure and vary considerably on the Tairāwhiti coastline but are typically 0.1-0.3 m/yr (Tonkin & Taylor, 2016). Stable slope angle is influenced by geology and structure and is also highly variable. There is no detailed information about rates of cliff erosion on the Ōpōtiki coastline.

Future Sea Level Rise Effects

The response of a cliff to rising sea level depends on the resistance of the geology and exposure to wave action. As more wave energy meets the base of the cliff due to rising sea level, the erosion of relatively "soft" cliffs is likely to increase. The erosion response will be further influenced by the presence (or absence) of a protective beach at the toe of the cliff.

A broadly accepted approach to estimating future cliff erosion rates is to assume that future toe erosion rates will increase in a way that is influenced by the relationship between past and future rates of sea level rise. The latest coastal erosion hazard assessment by Tonkin & Taylor (2016) has estimated future cliff erosion rates using this approach, which uses a generalised expression that relates past rates of erosion and sea level rise to projected future rates.

Coastal Hazards

Tides and Coastal Inundation

Spring tidal range is approximately 1.7 m on the Gisborne and Ōpōtiki coast, with a MHWS[7] level of 1.07 m (GVD-26) (Table 1).

Table 1: Tidal components at Gisborne and Ōpōtiki (GVD-26 and MVD-53 respectively). Source: https://www.linz.govt.nz/sea/tides/tide-predictions/standard-port-tidal-levels, datum corrections supplied in Tonkin & Taylor (2016), Tonkin & Taylor (2021).

	MHWS	MLWS (m)	Mean spring range (m)	Mean sea level (m)
Gisborne (GVD-26)	1.07	-0.65	1.72	0.21
Ōpōtiki (MVD-53)	0.84	-0.86	1.70	0.04

Water levels at the coast can become significantly elevated during storm events, due to the inverse barometer effect[1] and wind and wave set-up against the coast. Wave overtopping also further exacerbates coastal flooding. The tidal range in Tairāwhiti and Ōpōtiki is relatively small compared with other parts of New Zealand. This means that coastal inundation is heavily influenced by wave effects, which vary considerably with the physical setting and local geomorphology.

As the underlying mean sea level rises in the future, an increasing percentage of normal tides will exceed any given elevation. The same effect will occur with storm tides. Storm tide frequency distributions are such that a relatively small change in base mean sea level can greatly influence the frequency of flooding at any given elevation. For example, NIWA (2020) notes that what is now a relatively frequent 1 in 5-year event would reach the same elevation as a current 500-year ARI storm tide with just 0.16 m of sea level rise. Therefore, events that are currently very rare are expected to occur much more frequently in coming decades.

Extreme sea-levels from storm-tides and waves have most recently been assessed along the Tairāwhiti and Ōpōtiki coastlines by Stephens et al. (2014) and Tonkin & Taylor (2021). Tonkin & Taylor (2016) note that a 1% AEP storm tide is estimated at 1.4 m (GVD-26) in the south of Tairāwhiti District, to 1.5 m (GVD-26) in the north, based on data provided by Stephens et al. (2014). On the Ōpōtiki coast, 1% AEP storm tide levels are approximately 2.0 m (MVD-53) (Tonkin & Taylor, 2021). These figures do not include an allowance for wave run-up, which is variable depending on the physical setting and exposure of the site.

Coastal inundation analysis and mapping has recently been undertaken for the Ōpōtiki District, and the data is due to be released in the second half of 2023. This information will help to guide ongoing management of the trail by providing more detailed information about the storm tide hazard and highlighting areas susceptible to coastal inundation. This information can be used to guide the placing and design of the trail, and potentially to inform trail users about potential coastal hazards.

[1] When there is low atmospheric pressure over the ocean, the water level increases by 10 mm for every 1 hPa fall in atmospheric pressure.

Coastal Erosion

Numerous studies have investigated coastal erosion and the outcomes of these are reflected in the Tairāwhiti Resource Management Plan and the Ōpōtiki District Plan as Areas Susceptible to Coastal Hazards, or "ASCH". The ASCH identify the width of coastal margin potentially vulnerable to coastal hazards over a 100-year timeframe and are based on numerous coastal hazard studies (Gibb, 1994; Dahm & Kench, 2007, Eco Nomos, 2016). ASCH areas have been established with a relatively precautionary approach to provide a method to "screen" proposed activities and highlight the need for more detailed coastal hazard assessments. ASCH may therefore overstate the hazard in many areas.

Detailed hazards assessment at four key sites (Tolaga Bay, Anaura Bay, Wainui Beach and Tokomaru Bay) were completed by Coastal Management Consultants between 1994 and 2008. These hazard zones have been recognised and adopted in the Tairāwhiti Resource Management Plan ("TRMP"):

- Extreme risk: likely to be subject to adverse effects from short-term dune line fluctuations and storm cut (20-year to 30-year timeframe).
- High risk: likely to be subject to net shoreline retreat from historical long-term retreat and sea level rise by 2050.
- Moderate risk: likely to be subject to net shoreline retreat from historical long-term retreat and sea level rise by 2100.
- Safety buffer: likely to be affected in longer term (beyond 2100).

The TRMP includes controls on activities that may impact dunes and other sensitive coastal environments within the identified hazard zones.

The ASCH area was updated and refine by Tonkin & Taylor (2016) along remaining areas of the coastline. This more recent study identifies "ASCE" (Areas Susceptible to Coastal Erosion). The ASCE are calculated at 10-yearly increments from 2015-2115. Planning maps have been produced for present day, 2065 and 2115 timeframes, and include the expected impact of future accelerated sea level rise.

Dahm and Kench (2007) undertook a more detailed study to update the 1994 ASCH areas at priority sites in the Ōpōtiki District and this was again reviewed and updated by Eco Nomos (2016). Tonkin and Taylor have recently completed an updated coastal erosion hazard assessment for sand and gravel beaches and river mouths in the Ōpōtiki District (Tonkin & Taylor, 2021). The report and associated hazard areas are not yet publicly available, but the report was provided to the author to aid with this assessment. Coastal erosion and coastal inundation hazard reports and associated maps are expected to be publicly available in the second half of 2023.

Potential Effects of Trail Construction and Use

As the proposed trail is generally a low-profile track, and in many coastal areas an unformed track, the construction and presence of the trail is unlikely to have significant adverse effects on the coastline or coastal hazards. However, inappropriate positioning, construction or management of the trail could exacerbate the existing coastal hazard risk, including:

- earthworks and associated vegetation disturbance on sensitive dune and coastal margin environments
- damage to dunes and coastal margins from increased pedestrian and horse access
- increased coastal hazard risk due to placement of assets (including the trail and associated structures) within high-risk areas.

These potential effects are discussed below.

Earthworks

Earthworks have the potential to expose highly erodible (non-cohesive) soils in dune environments. Dune sediments are easily damaged both by direct physical disturbance, and by accelerated or chronic wind and coastal erosion if native vegetation is lost. Beaches and associated dunes are easily eroded and particularly vulnerable to projected sea level rise. Retention of natural dune volume is important for coastal resilience. Disturbance of these coastal margin sediments can exacerbate erosion rates, particularly in areas where the coastline has an existing erosion trend.

Where sections of the trail traverse dune environments, earthworks and vegetation disturbance should consider the vulnerability of the environment. The intent in these areas is to simply identify the trail using way finder markers, which will be used to clearly direct walkers to a defined trail. The alignment and location of the pathway should avoid the sensitive frontal dune where possible.

Pedestrian and Horse Access to the Coast

There are currently no structures proposed to provide beach access as part of the trail development. Although therefore not a direct consenting issue, the location and design of the trail should also be managed to mitigate the physical disturbance associated with pedestrians and horses accessing the beach. Increased pedestrian and horse traffic could degrade fragile coastal margins in some areas. It is expected that the "passport" system will provide trail users with information about the importance of using formed accessways and respecting the coastal margin.

In some environments the coast cannot adjust landward as it would naturally in response to sea level rise. This may be due to coastal protection structures, existing infrastructure or development, or natural geomorphology (erosion resistant and/or steeply rising land). In these cases, accessible beaches may become pinched out over time. This will threaten the sustainability of beach sections of the walk at higher stages of the tide and alternative solutions may be required. It is difficult to predict the timeframes over which this access may be lost, due to natural fluctuations and the inherent uncertainty associated with predicting both sea level rise rates and the shoreline's response to sea level rise.

Increased Coastal Hazard Risk

Coastal hazard risk is the product of the coastal hazard and the consequence of that hazard occurring. The establishment of the trail at the coastal margin could increase the consequences of natural coastal erosion and therefore increase the total coastal erosion hazard risk. This is particularly relevant where the trail is to include physical structures (e.g. boardwalks).

The trail alignment has been located as much as practicable to avoid areas likely to be impacted by coastal erosion hazard over the next 50 years. New stretches of trail on cliff shorelines have been aligned to avoid areas likely to be impacted by coastal cliff instability. Slope instability in cliff areas has been addressed in more detail in the geotechnical assessment.

Although effort has been made to minimise coastal hazards, there are sections of the trail where there is no option but to locate it within the identified coastal hazard area. In these areas, the width of the trail will be adapted, and the construction methods/materials limited to avoid large investment within the hazard area and ensure adaptability (i.e. simple path design). In many of these areas, the trail is directly adjacent to (or directly utilising) existing infrastructure that is at risk from coastal hazards.

Placement of toilet and shelter buildings within an area vulnerable to coastal erosion or inundation could cause disturbance to sensitive coastal environments and add to coastal hazard risk. The location of all proposed new buildings and bridges on the Tairāwhiti coast has been reviewed against the identified coastal erosion hazard areas (Tonkin & Taylor, 2016), and all are located outside of coastal erosion areas likely to be vulnerable over the next 50 years.

There are two toilet structures proposed on the Ōpōtiki coastline (at Omaio and Hawai) within the area identified as potentially susceptible to coastal hazards (ASCH). The ASCH have been identified with a broad scale and precautionary approach (i.e. the hazard may be overstated in some areas), and is based on a 100 year timeframe. Based on the information and analysis presented in the available coastal hazard reports and consideration of the coastal setting, the risk to these two buildings is very low.

The most significant potential adverse impact of the proposed works on the physical coastal environment is the possible construction of erosion protection works that may be deemed necessary in the future to protect the trail where it is threated or damaged by coastal erosion. Coastal protection structures can cause adverse effects in the coastal environment, including accelerated lowering of the beach profile, exacerbated erosion on adjacent shorelines ("end effects") and loss of amenity values. These effects can exacerbate coastal hazard risk in the long term. There is currently no expectation that the trail will be protected with physical works in the short term, and there are no coastal protection works proposed as part of the current resource consent application.

Medium to long-term management of the trail will almost certainly require decisions to be made about protecting or adjusting the trail alignment. This assessment assumes that the key focus will be on avoidance of hazards and resilience through adaptation wherever possible. Any future physical works that may be required to protect the trail will be the subject of a separate process and will require resource consent. In many areas this will be linked with the management of the adjacent road. Such a process will require a detailed (site-specific) assessment of the potential effects.

Management Recommendations

The proposed walking, cycling and horse-riding trails traverse many coastal areas, including sand dunes, narrow coastal reserves, low lying coastal plains and coastal cliffs. This report has reviewed the available coastal hazard information to evaluate stretches of the proposed trail that may be vulnerable to coastal hazard over the next 50 years, including short term fluctuations and long-term trends in shoreline change, coastal inundation, and the potential effect of projected sea level rise.

The establishment of Te Ara Tipuna will have little or no effect on existing coastal hazards, based on the following conclusions and assumptions:

- the trail will be marked with simple way finding posts and earthworks will be minimised in sand dunes, unless for the purposes of dune restoration or improvement of dune stability
- the trail itself does not create a barrier to natural coastal processes
- if the trail is threatened or damaged by coastal erosion, management actions will prioritise avoidance and adaptation of the trail alignment over the construction of protection works
- the trail does not include lowering of sand dunes or significant earthworks in coastal inundation areas, and will either avoid or be designed to withstand occasional coastal inundation in low-lying coastal margins
- coastal hazard risk is minimised by locating proposed structures (toilets, shelters and boardwalks) mostly outside coastal hazard areas, and any remaining coastal hazard risk can be mitigated through an adaptive management approach.

Although the establishment of the trail is unlikely to affect coastal hazard processes, users of the trail could be impacted by coastal hazards, and there is a risk of physical damage to the trail over time in some places. There are sections of the trail located close to erosional coastlines, and in some areas the road and/or other land-based assets are already threatened by coastal erosion, with little space to align the trail further landward. In most of these areas, the trail follows existing roads, and its maintenance will likely be integrated with the management of the road.

Predicting each of the many components of coastal erosion hazard comes with considerable uncertainty, particularly the long-term rate and effect of future sea level rise. The likely lifespan of a section of trail close to the coast cannot be accurately predicted. Coastal erosion hazard could be managed using an adaptive management approach, with monitoring and a range of triggers and actions that relate to the coastal hazard risk profile over time. This approach would provide for coastal sections of the trail to be utilised while conditions allow, while planning for future actions to adapt to an increasing hazard risk over time and ensuring the objectives of Te Ara Tipuna are met in terms of resilience.

In low lying areas (particularly Tokomaru Bay and Tolaga Bay), the trail may be periodically inundated during coastal storm events, either directly by storm surge, or by wave run-up and overwash close to the coast. This is only likely during rare and extreme events but is expected to become more frequent over time with projected sea level rise.

A “passport” system has been proposed, to provide trail users with information about appropriate behaviour and sensitive habitats or features (e.g. culturally significant sites, high value ecosystems etc). This system will include information about coastal hazards, including:

- avoiding unnecessary damage in sand dune environments, by using defined accessways and trails
- awareness of tides and storm surge (i.e. some portions of the trail may not be safe during high stages of the tide, or during storm or high wave events)
- basic awareness of tsunami hazard (i.e. signs and actions)

Conclusions

The impact of the establishment of the proposed Te Ara Tipuna coastal trail on coastal processes and coastal hazards is likely to be less than minor. This assessment assumes that the construction and management of the trail reflects the potentially sensitive coastal margin, and an adaptive approach is taken to management of the trail over time in hazardous areas. This judgement also assumes that significant earthworks and major structures will be undertaken outside areas of sensitive coastal margins and identified coastal hazard areas.

Significant stretches of the trail are located very close to the coastline and are potentially vulnerable to damage from coastal erosion in the future, particularly with future sea level rise. In many of these areas, other existing infrastructure is already at risk. Future actions to protect at risk parts of the trail could have significant adverse effects on the coastal environment. It is not practicable to avoid all potential coastal hazard areas, and there will be a need to undertake an adaptive management approach to minimise these impacts and to integrate management of the trail with coastal hazard management of other at-risk infrastructure.

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Tonkin & Taylor, 2016: Update of Areas Susceptible to Coastal Erosion Hazard. Prepared for Gisborne District Council. Final Report V3. August 2016.

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Appendix 1: Sea Level Rise

Sea level has been rising at approximately 2 mm per year for the last 100 years. Recent historical trends are therefore occurring with this rate of sea level rise. The average level of the sea is expected to continue to increase at an accelerating rate for the foreseeable future. This will have a significant impact on both coastal erosion and coastal inundation hazard in the future.

The Ministry for the Environment provides projections for future sea level rise around New Zealand and recommendations for the use of sea level rise projections for managing coastal areas (MfE, 2022). The guidelines recommend that a range of future sea level rise scenarios are considered to reflect the uncertainty in predicting future sea level rise rates. Five "plausible" Shared Socioeconomic Pathways (known as SSP scenarios) are recommended for coastal planning in New Zealand, which are based on the most recent International Panel on Climate Change (IPCC) report (IPCC, 2021):

- SSP1-2.6 M – "Sustainability"
- SSP2-4.5 M – "Middle of the Road"
- SSP3-7.0 M – "Regional Rivalry"
- SSP5-8.5 M – "Fossil-fuel Development"
- SSP5-8.5 H+ - 83rd percentile (top of shaded "likely range" of SSP5-8.5)

Projected sea level rise for each of the SSP scenarios are shown in Figure 2. The range of projections indicates that sea level rise is likely to be between 0.3 m and 0.5 m over the next 50 years and 0.5 m and 1.1 m over the next 100 years. Sea level rise is expected to continue to increase beyond that time.

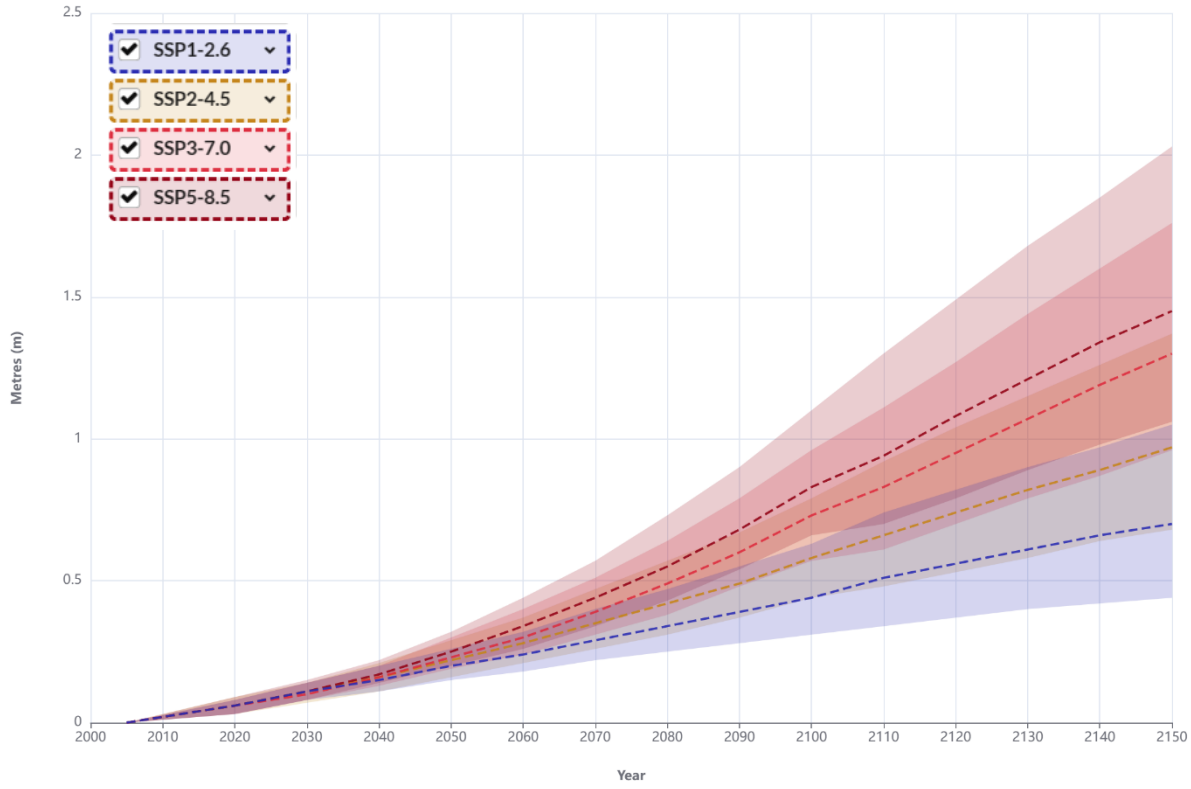

Figure 2: Potential future sea level rise scenarios for the period out to 2150 based on present interim national guidance (solid lines). Shaded areas indicate the likely confidence intervals. Source: Figure 1, MfE (2022).

The amount of sea level rise experienced at any given location can also be influenced by vertical land movement (uplift or subsidence). If land is dropping (subsidence) then sea level rise rates will be effectively increased relative to the land. The NZSeaRise Programme[2] provides sea-level rise projections around New Zealand that include estimated vertical land movement.

NIWA (2020) concludes that NZ-wide sea level rise scenarios should be applied in the Tairāwhiti Region as available data indicates relatively small rates of subsidence and uplift are presently occurring, and that there is uncertainty about whether they will persist for decades. The NZSeaRise Programme provides relative sea-level rise projections around New Zealand, which include consideration of vertical land movement. The NZ SeaRise data suggests a vertical land movement of +/- 1.5 mm/yr in the Gisborne and eastern Bay of Plenty Regions. There is considerable uncertainty in defining these vertical land movement rates away from long term monitoring sites as much of the data is based on a relatively short satellite record.

[2] https://www.searise.nz/

Appendix 9:

Heritage and Archaeological Assessment

REPORT

DESK-BASED HISTORIC HERITAGE ASSESSMENT OF TE ARA TIPUNA, GISBORNE AND ŌPŌTIKI DISTRICTS

InSitu
ARCHAEOLOGICAL HERITAGE

DESK-BASED HISTORIC HERITAGE ASSESSMENT OF TE ARA TIPUNA, GISBORNE AND ŌPŌTIKI DISTRICTS

11 July 2023

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1. Introduction

Te Ara Tipuna is a project to build and maintain a network of accessways for pedestrians, cyclists, and horse trekkers in Te Tairāwhiti (Gisborne District) and the Ōpōtiki District in Te Moana a Toi (Bay of Plenty). The project is sponsored by Te Runanganui o Ngati Porou with investment and staffing support from Te Puni Kōkiri. The Planning Collective and Civil Project Solutions are preparing the resource consent application for Te Ara Tipuna.

Te Ara Tipuna consists of ~500 km of trails that will connect Tūranganui-a-Kiwa to Ōpōtiki (Figure 1). The main route is divided into daily stages with stop-over points at marae and/or townships. The ara also connects to a number of other trails (e.g., the Cooks Cove track) allowing travellers the opportunity for further sojourns. The whenua over which the ara moves is a rich cultural and historic heritage landscape, which is characterized by archaeological sites, such as storage pits, midden and pā. InSitu Heritage Ltd was engaged to provide an archaeological assessment for Resource Management Act consenting purposes, which identifies areas where there is potential for effects on historic heritage values across the planned trail network.

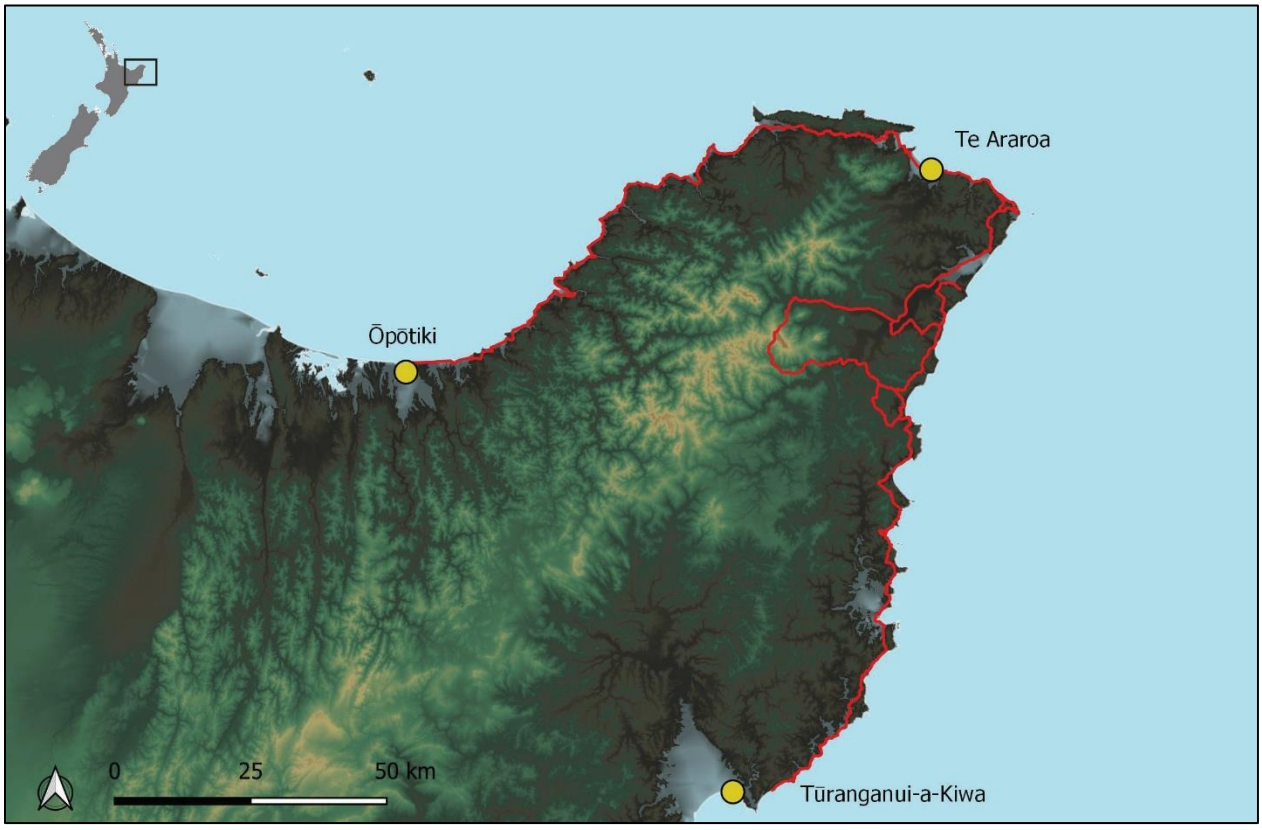

Figure 1 -Te Ara Tipuna (red line) running from Tūranganui-a-Kiwa to Ōpōtiki.

This report provides the methodology and results of a desk-based historic heritage assessment of the three tracks (walking, cycling and horse) proposed for Te Ara Tipuna to determine the probability of effects on historic heritage values. The primary historic heritage places that may be affected are archaeological sites relating to pre-1900 Māori habitation and use of the areas that the proposed trail passes through.

The major output of this work is a shapefile layer identifying: (1) areas where the trails will encounter archaeological sites, (2) areas where there is a reasonable cause to suspect archaeological sites will be encountered, and (3) areas where there is a low probability of encountering archaeological sites.

This report is concerned with physical evidence of past human activity and is not an assessment of cultural values or wāhi tapu. Advice about Māori cultural values can only be provided by tangata whenua.

2. Statutory Requirements

Heritage New Zealand administers the Heritage New Zealand Pouhere Taonga Act 2014 (the Act). The Act makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. Any work that may affect an archaeological site requires an authority from Heritage New Zealand before commencement.

This process applies regardless of whether the land on which the site is located is designated, or the activity is permitted under the District or Regional Plan or a resource or building consent has been granted. The Act provides for substantial penalties for unauthorised destruction or modification.

An archaeological site is defined in the Heritage New Zealand Pouhere Taonga Act 2014 as any place in New Zealand (including buildings, structures or shipwrecks) that was associated with pre-1900 human activity, where there is evidence relating to the history of New Zealand that can be investigated using archaeological methods.

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

- The site is recorded in the NZ Archaeological Association Site Recording Scheme or recorded on the New Zealand Heritage List
- The site is not recorded and only becomes obvious because of ground disturbance
- The activity is permitted under a district or regional plan, or a resource or building consent has been granted.

The Resource Management Act 1991 requires City, District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way that provides for the wellbeing of today's communities while safeguarding the options of future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance. Where resource consent is required for any activity, the assessment of effects is required to address historic heritage.

Historic heritage is defined as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities. Historic heritage includes:

- Historic sites, structures, places, and areas
- Archaeological sites
- Sites of significance to Māori, including wāhi tapu
- Surroundings associated with the natural and physical resources (RMA section 2).

The primary means by which councils meet the requirements of the RMA is via Regional, District or City Plans. Plans may include inventories of heritage items, rules and incentives for the protection of heritage.

Part C4 of the Tairawhiti Resource Management Plan relates to cultural heritage, recognised as comprising archaeological sites, wāhi tapu and wāhi tapu areas, heritage buildings, places, and precincts. The plan incorporates four heritage overlays, including Archaeological Sites & Areas (Overlay 2) to assist with the protection and management of historic heritage. Overlay 2 includes information from the Heritage New Zealand List, NZAA Site Recording Scheme and archaeological surveys; the sites are also listed in a Schedule in Appendix 1 of the plan. The plan includes rules associated with each heritage overlay.

Ōpōtiki District Council Plan defines heritage resources, as any historic place, wāhi tapu, archaeological site (as defined under the Heritage New Zealand Pouhere Taonga Act) and items including notable trees, objects or features. Chapter 14 of the Plan provides a set of rules for the management of heritage resources, as well as lists of wāhi tapu, heritage items from The Heritage New Zealand List Rārangi Kōrero and notable trees.

3. Project Scope

Te Ara Tipuna is proposed as a mixed-use trail that will accommodate walkers, cyclists and horse trekkers. Across much of the ara the trails will run adjacent to each other in a 4.5m wide footprint (Figures 2 & 3). Single-use trails (e.g., just for cycling) are also proposed; in other areas the trail will run adjacent to, or utilise, existing roads.

A range of construction methodologies are proposed. Gold, Silver and Bronze tier tracks will be constructed of a mixture of raised and ground-level boardwalks and compacted lime or gravel tracks (Figure 2). The standard track will be a 4.5m mown path, which will be augmented to increase stability in areas of unstable ground.

The trail will make use of existing track formations where possible, but ground disturbance associated with track construction will occur. Further ground disturbance is likely during associated construction activities including, but not limited to, facilities installation, the installation of bollards, wayfinding and interpretation signage and planting.

4. Data

The following data were drawn upon for this assessment.

The Tairāwhiti Resource Management Plan heritage overlays, including the GDC Heritage Alert Layer - Overlay 2, were accessed from data.govt.co.nz. Historic heritage site data was accessed from the operative Plans for both Gisborne and Ōpōtiki District via council websites.

Modern aerial photographs and LiDAR data were sourced via LINZ data service.

Historic aerials were accessed via the online portal Retrolens.co.nz.

Historic survey plans were sourced from Premise.

Archaeological site information was sourced from the New Zealand Archaeological Association's (NZAA) ArchSite platform. Locational data for sites was in point form, and it should be noted that the accuracy of these points is variable (discussed further below), therefore all sites within or adjacent to the trail corridor were accurately located using a combination of historic and modern aerial photographs and LiDAR prior to the assessment of impacts.

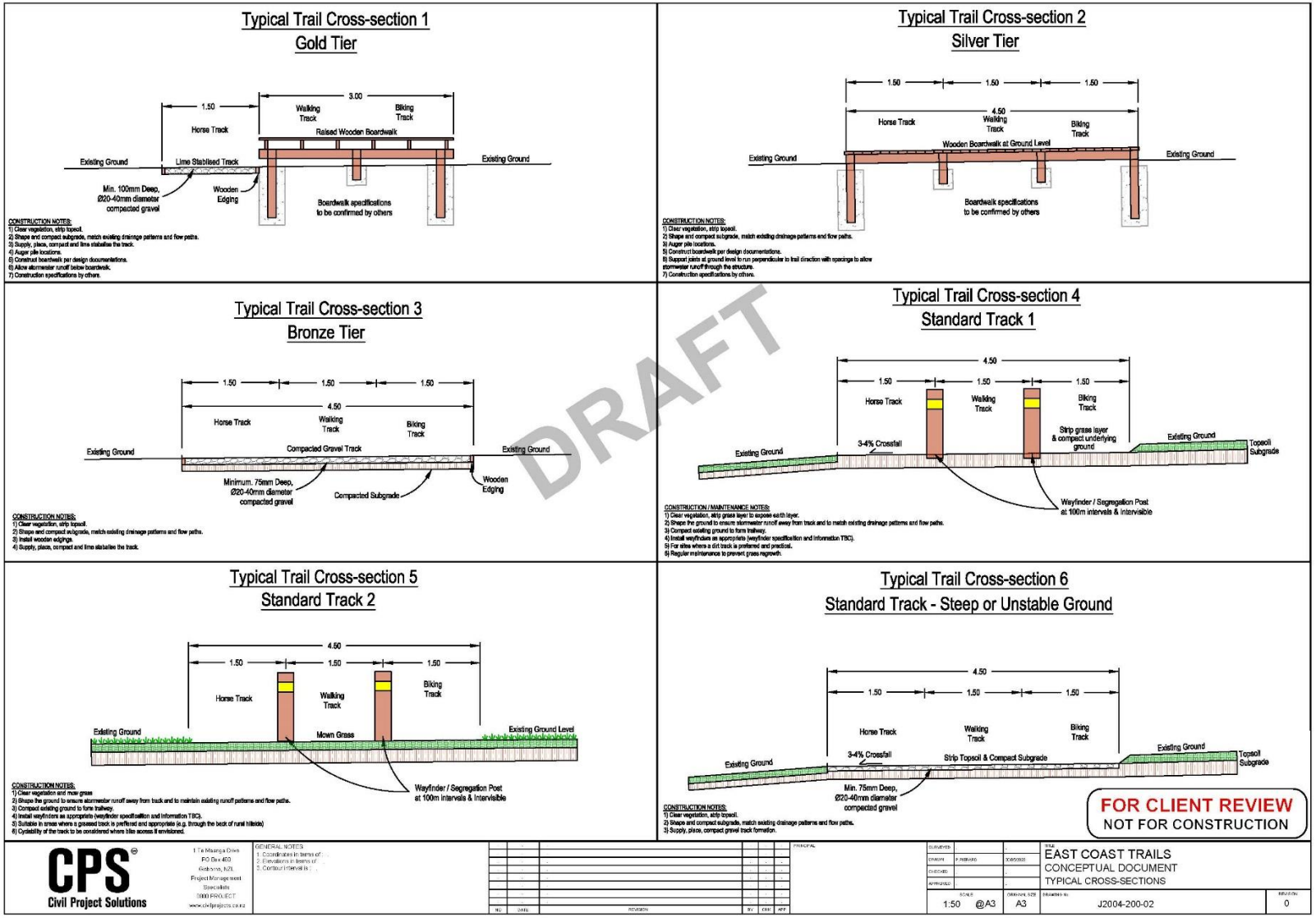

Figure 2 – Concept drawings of the proposed trail tier constructions (Source: Civil Project Solutions).

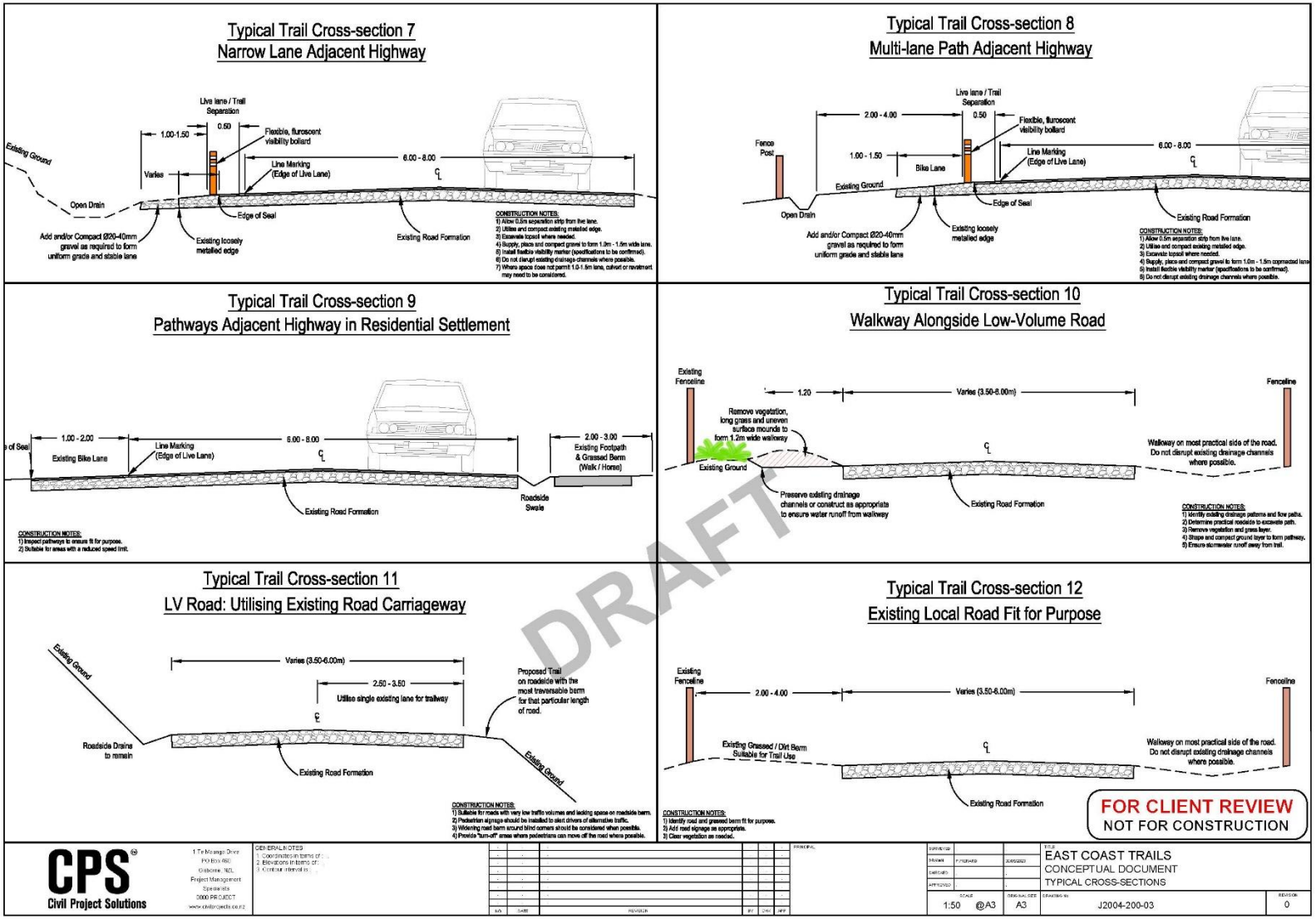

Figure 3 - Concept drawings of the proposed trail tier constructions (Source: Civil Project Solutions).

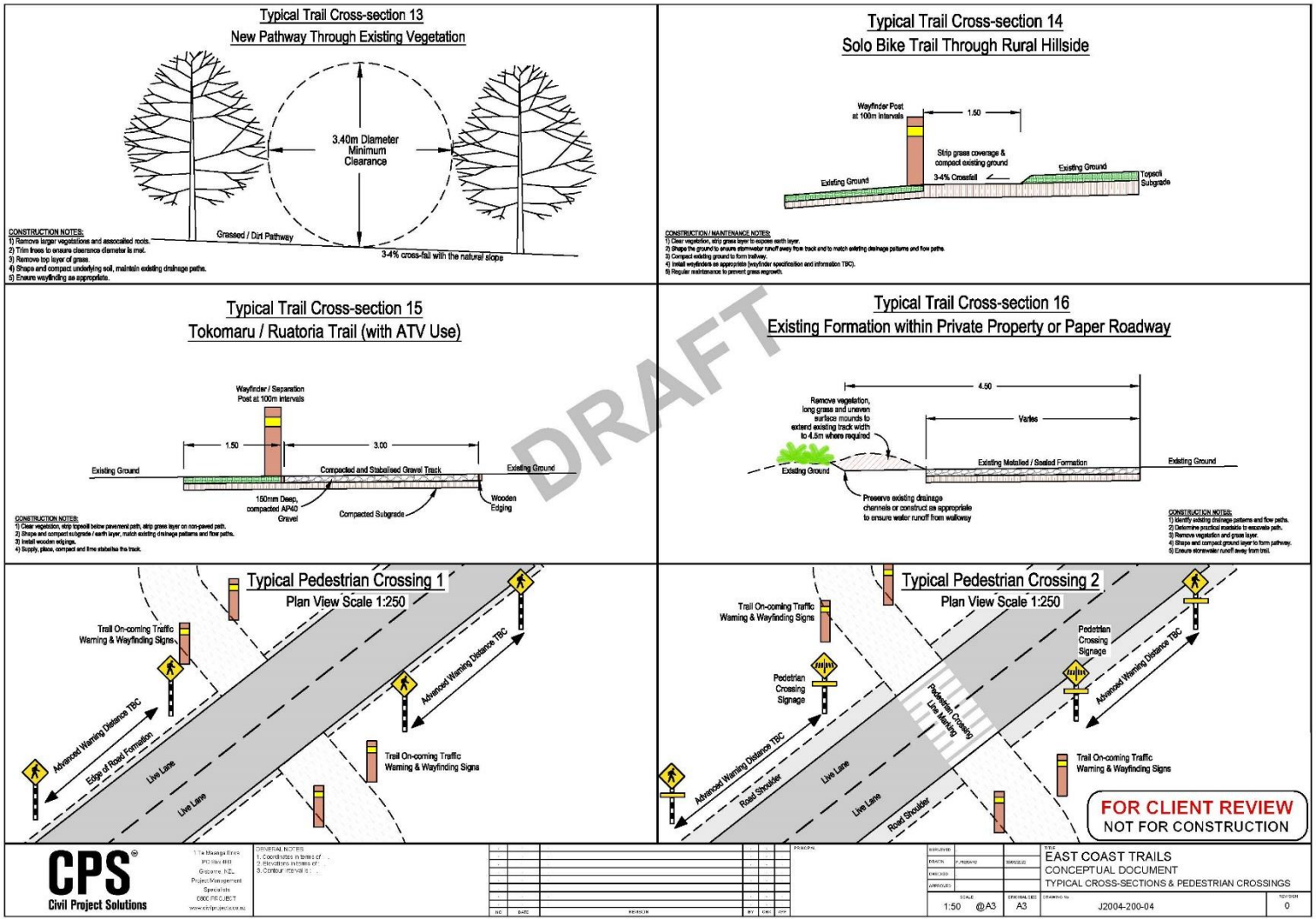

Figure 4 - Concept drawings of the proposed trail tier constructions (Source: Civil Project Solutions).

5. Methodology

The historic heritage and archaeological assessment of Te Ara Tipuna focused on establishing the potential for effects on historic heritage values, primarily archaeological sites. A range of trail design concepts were provided (see above). However, given the early stage of the project, and impacts on the route caused by severe weather events, the specific areas in which different track specifications may be utilised has not yet been fully determined. Therefore, the assessment of effects was made on the basis that the design concept with the greatest earthwork impact was being employed. This is a conservative method but ensures the greatest protection for archaeological sites and other heritage places.

Two levels of methodology are outlined below: (1) the process undertaken to ascribe sections of the ara to categories based on possible effects of track works and, (2) the development and meaning of assessment categories.

5.1 Attribution to Category

The attribution of sections of Te Ara Tipuna to the appropriate potential effects category involved the assessment of multiple lines of evidence.

In the first instance archaeological sites and historic heritage places located within 100m (in either direction) of the trail route were identified using an in-built spatial query in QGIS. However, the inaccuracy of the NZAA dataset (Figure 5) required that sites immediately beyond this buffer were also checked. This process involved assessment of the location of sites based on evidence within NZAA Site Record Forms supplemented by Remote Sensing techniques, for example, the inspection of aerial photographs and LiDAR (Figure 6). When the accurate location of sites was determined their location and extent was plotted in the project GIS.

Recorded archaeological sites represent only the visible portion of the wider archaeological landscape, therefore, the broader distribution of recorded sites together with landscape or natural features (e.g., soil type, aspect) were also used to assess the probability of encountering sites during works.

Remote Sensing techniques including assessment of historic and modern aerial photographs, LiDAR and historic survey plans was also used to identify unrecorded archaeological features and to check the location of other potential historic heritage features (Figure 7). When identified, the location and extent of features was plotted in the project GIS.

The proposed route of Te Ara Tipuna was laid over the spatial extents of recorded sites, unrecorded sites, historic heritage site locations and Gisborne District Heritage Alert Overlay. The location of the trail relative to these layers determined the effects category for specific areas of trail. The effects categories are discussed below.

5.2 Effects Categories

Three categories of potential historic heritage effects (Green, Yellow and Red) are employed in this assessment which has been prepared for Resource Management Act consenting purposes.

- **Green Zones** are those areas where no archaeological or other historic heritage features were observed and where the possibility of encountering intact subterranean features is assessed to be low. The potential for effects on historic heritage values in these areas have been assessed to be less than minor. Works in these areas can proceed under an Archaeological Site Discovery Protocol (ASDP).

- **Yellow Zones** are those where no direct evidence of archaeological sites or historic heritage features was observed, but where subterranean or unidentified sites are considered likely to occur based on landscape context or secondary information (e.g., from historical survey plans). Further archaeological advice must be sought prior to any earthworks being carried out in such areas. This advice will determine whether areas designated yellow in this assessment are reassigned to either the green or red zones and how they will be managed in terms of the Heritage New Zealand Pouhere Taonga Act archaeological authority process.

- **Red Zones** are those where historic heritage places and/or archaeological sites recorded in the NZAA Site Recording Scheme are crossed by the ara, or where remote sensing techniques provided clear evidence that unrecorded sites are present in the construction footprint of the trail. An archaeological authority from Heritage New Zealand must be sought and obtained prior to any earthworks in these areas. Further archaeological assessment, including field visits, and the development of site instructions and/or management plans will be required to support any application for an archaeological authority. The effects on historic heritage places in red zones will be managed by either avoidance, minimisation of effects or mitigation under the Heritage New Zealand Pouhere Taonga Act provisions.

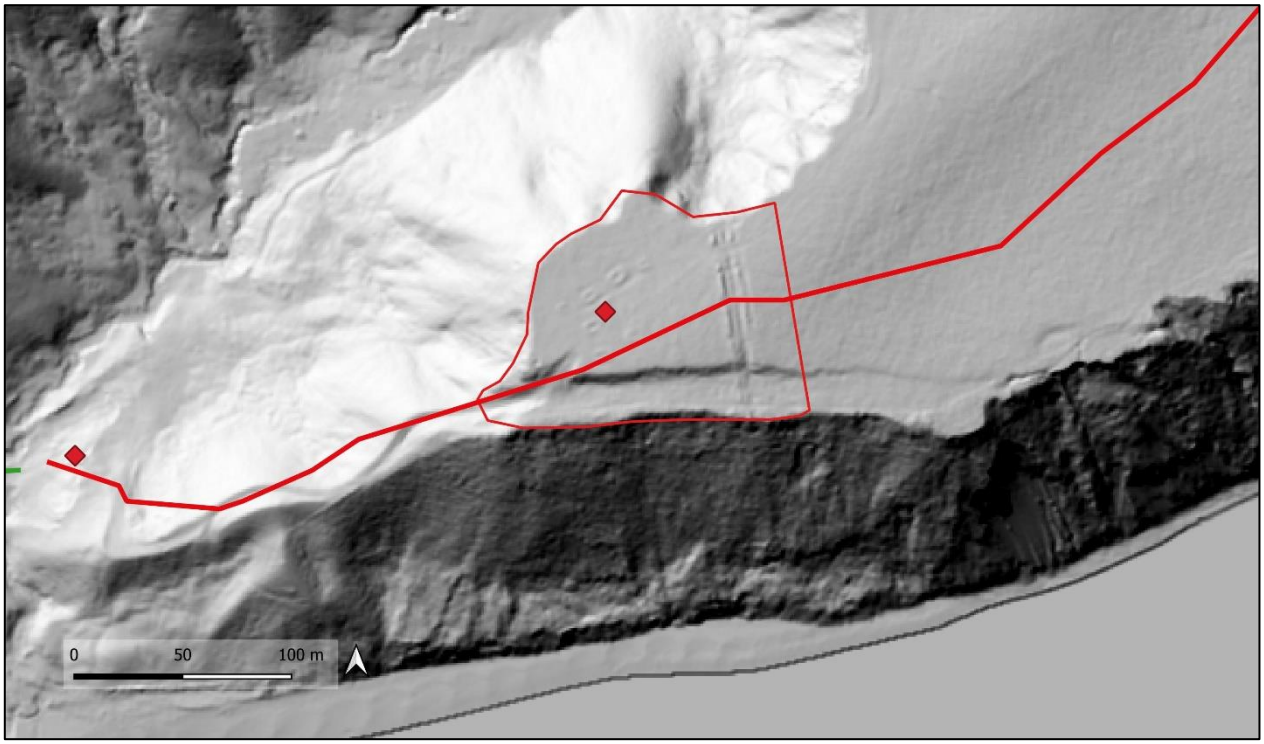

Figure 5 – An example of spatial inaccuracy in site data. The image shows the recorded point location of Y18/15, which is bypassed by the trail. However, the extent of the site (unrecorded) is much larger and is crossed by the proposed trail.

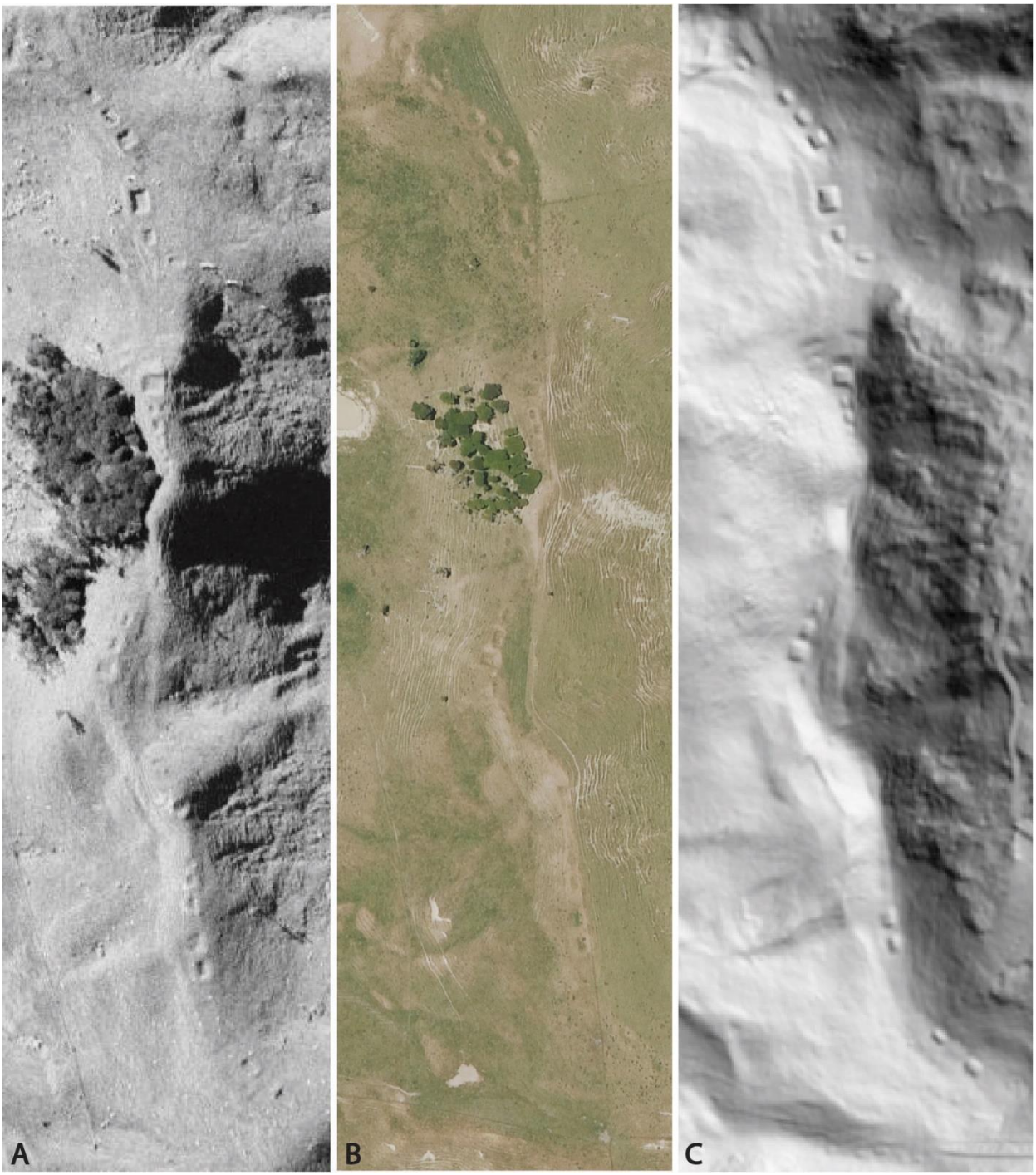

Figure 6 – Examples of site data captured by historical aerials photographs (A), modern aerial photographs (B) and LiDAR (C).

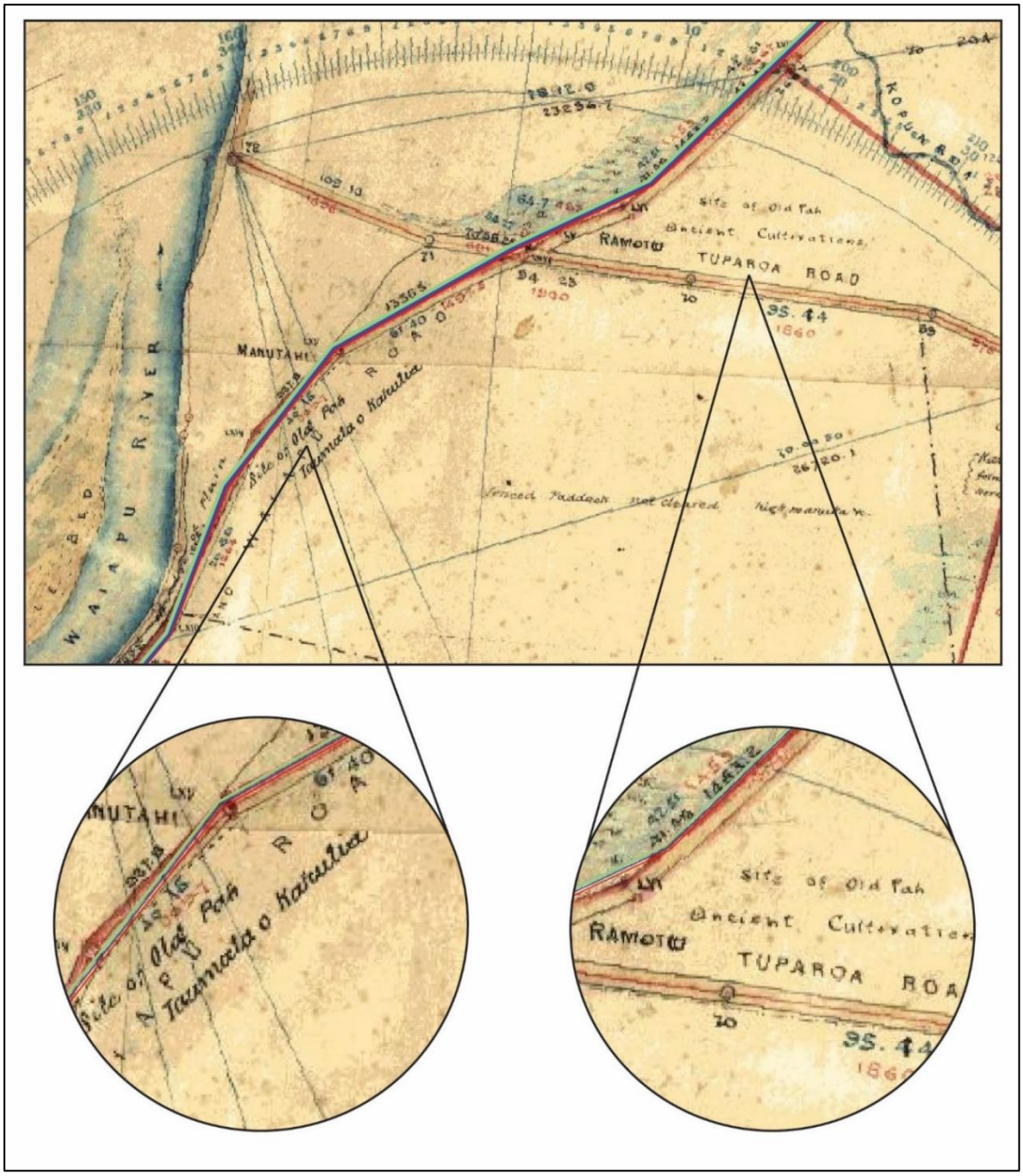

Figure 7 – Example of information gained via historic survey plans.

6. Historic Heritage Setting

Te Ara Tipuna journeys across a vast swathe of the Eastern North Island. The primary type of historic heritage place present in this area is archaeological sites. The area contains a diverse array of environments and landforms matched by a similarly diverse archaeological landscape. For ease, the following brief review of archaeology is segmented into Te Tairāwhiti (Gisborne District) and eastern Te Moana a Toi (eastern Bay of Plenty).

Te Tairāwhiti

Te Tairāwhiti is a rich archaeological landscape, containing evidence from all periods of human history in Aotearoa. The district contains a number of small-scale settlements dating from the initial occupation of Aotearoa around 750 years ago. Sites such as Y18/50 at Wainui Beach and the recently excavated Eastland Port Wharf-side Log yard site in Gisborne (Y18/503), contain evidence of small-scale, transient occupation, exploitation of local resources and the importation of non-local stones for tool-making consistent with early settlement elsewhere in Te Ika-a-Maui (Walter et al. 2006; Walter and Greig 2017). Evidence for early occupation is also present further north along the coast (e.g., at Whangara; Jones and Moore 1985 and Cooks Cove; Walter et al. 2011) and in the form of scatters of typically early artefact forms (see Golson 1959).

The majority of archaeological sites in the region date from the later end of the pre-contact sequence in Aotearoa (post *c.* AD 1500). Pā and pits are numerous, both adjacent to river channels and in the hill country on the margins of river valleys (Jones 1986, 1988, 1989a, 2001). Flat land pā typically utilised bends or confluences of channels and were cut off from the surrounding area by artificial defences (Jones 1988). While in many cases these pā can be clearly identified, there are several instances where large settlements noted by early European visitors have now been lost archaeologically due to land modification. Most notable among these sites is Whakawhitira in the Waiapu Valley, which was recorded as a palisaded settlement, one side of which was paced and reckoned to be a mile in length, making it a truly massive settlement (Jones 2001).

Away from the flats, pā utilise a mixture of natural and artificial defences. Hill-top pā are most concentrated in river valley systems and in the coastal strips, where they overlooked the best land for gardening. East Coast gardens were often remarked upon by Cook and members of his expedition (Edwards 2003). These early accounts provide clear evidence for gardens in coastal valley systems, for instance those noted at Anaura Bay (Jones 1989), which have little or no surface expression. Gardens in valley bottoms appear to be closely correlated to particular soil types that were highly suitable for Māori crops. For instance, in the Waipaoa Valley, gardening and storage sites appear concentrated around Waihirere and Matawhero soils (Jones 1989a, 2001).

The region is also notable as the scene of some of the first contact between Europeans and Māori. While little direct evidence of these first contacts is present in the archaeological record, the period following contact is well represented. This includes industrial sites like sawmills (e.g., Y18/204), historic houses (e.g., Y18/405) and a number of sites relating to conflict between the two groups (e.g., Y17/315, a gunfighter pa).

The Gisborne District archaeological landscape includes impressive visible features from across New Zealand history. Crucially, the region also contains a number of historic sites with little or no surface expression, and those that, despite being noted historically, have since been lost. Thus, the distribution of recorded archaeological sites can only be regarded as indicative of past land use and careful consideration should be given to individual areas prior to earthworks.

Eastern Te Moana a Toi

Like Te Tairāwhiti, the Eastern Bay of Plenty contains a rich and dense concentration of archaeological sites predominantly relating to Māori occupation of the whenua. An extensive survey of the area by Anne Leahy and Wendy Walsh (1978) recorded a number of pā on the hills at the northern and southern extent of bays and in the hinterland behind the coastal strip. The distinctive pā type known as 'block pā', which are defined as distinct enclosures (often multiple) with high inner banks were also recorded nearer the coast often using cliffs as part of the defence (e.g., X14/31). Leahy and Walsh (1978) also record a number of 'open' or undefended settlements, consisting of terraces and areas of food storage. Other elements of Māori life, such as garden systems, were also recorded by Leahy and Walsh (1978). Many of these were ephemeral, but significant and extremely intact gardens systems were recorded, particularly near Whangaparāoa (e.g., Y14/364). Although the area is linked to the arrival of early wāka, no early period sites have been clearly identified in the Te Whānau a Apanui rohe.

Describing the settlement pattern of the Eastern Bay of Plenty in Te Whānau a Apanui rohe, Walter et al. (2010) suggest that individual bays have a similar array of site types; quadrangular pā adjacent to coastal cliffs, terraced pā on the eastern and lateral ridgelines and lower-level occupation and probably gardens on the coastal flats. In their model, each bay served as the basic geographic unit for semi-autonomous communities. While this model is applicable at the broad scale, there is considerable variation between bays and environments within the Te Whānau a Apanui rohe, which cause associated variation in settlement pattern (Coster 2017).

Unlike much of the area further east, the landscape within the rohe of Te Whakatōhea consists of open, sandy beaches and relatively easy country. The archaeological landscape in this area consists primarily of coastal midden and pit, terrace and pā sites on high ground above the coastal strip and river flats. Midden sites are typical of coastal shell midden throughout the Bay of Plenty; however, one cluster of sites on Paerata Ridge (W15/188, W15/191 and W15/114) contain material culture and faunal remains consistent with occupation of the area from the very beginning of human history in New Zealand (Phillips 1998).

Pā make up the greatest number of recorded sites in this landscape. Pā are typically located on the edge of high ground above the river flats with clusters appearing in strategically important locations along the coast and river systems. Much like landscapes elsewhere in the Bay of Plenty, the pre-European contact archaeological record around Ōpōtiki appears patchy. Site distribution is biased toward highly visible sites (pā) and ephemeral sites like gardens or storage pits are underrepresented. Archaeological excavation, survey and historical document searches conducted by the authors has revealed the presence of several unrecorded sites, including sites in the coastal sand dunes over which Te Ara Tipuna will cross.

Historic-era sites are rare in the Whakatōhea rohe. This is largely because of significant impacts of the Ngāpuhi raids during the 'Musket Wars' (Walker 2007) and, the 1865 Crown invasion and

Raupatu, which resulted in large-scale loss of land and subsequent loss of sites through land development.

7. Results

The Tairāwhiti Resource Management Plan includes a Heritage Alert Overlay, which is a predictive model of human settlement in the district and acts as a tool to aid early recognition of heritage places[1]. The majority of Te Ara Tipuna is contained within the Heritage Alert Overlay (Figure 8). However, the granularity of the overlay is low, the following results provide a fine-grained assessment of the potential effects to heritage places along Te Ara Tipuna.

The majority of listed non-archaeological historic heritage sites in Te Tairāwhiti and Ōpōtiki Districts are located away from the planned route of Te Ara Tipuna. Sites on the Post-European Contact Schedule are most often contained within land parcels adjacent to the trail, but features are unlikely to extend, or to exist, in the trail footprint. A great many listed wāhi tapu sites are unaffected by the trail, the notable exception being WY5 at Tatapōuri Point. Community Heritage Reserves at Makorori Point, Pouawa and Waihau Beach are also crossed by Te Ara Tipuna.

Full results of this assessment are provided in Appendix I, which includes a map from each day with sections of trail coded as per the above-described method. Here we present a several examples of high, medium and low potential effect areas along Te Ara Tipuna (Figure 9).

7.1 Red Zones

Areas where there is high potential for effects on historic heritage values are those where there is clear and direct evidence that the ara passes through or very near to an archaeological site. The area around Tatapōuri Point illustrates a high potential environment in two ways. In this section the track divides with the bike track running to the north along a raised ridgeline and the walking and horse tracks (purple and green lines) running along the beach, across the Point and then re-joining the bike track (Figure 10). The bike track passes directly through a large (~1.2km long), ridge-top occupation and food storage site (Y18/68). This site includes visible surface features (Figure 11), but is highly likely to contain further features (e.g., hearths and midden) below the surface. To the south, the walking and horse trails run across Tatapōuri Point utilising existing tracks and not directly within archaeological site extents. However, the density of recorded archaeological sites in this area suggests that any new track formation or development of existing tracks is highly likely to have effects on archaeological sites. In such areas earthworks are highly likely to result in disturbance to the site(s) irrespective of the route taken.

[1] No such overlay is available in the Ōpōtiki District.

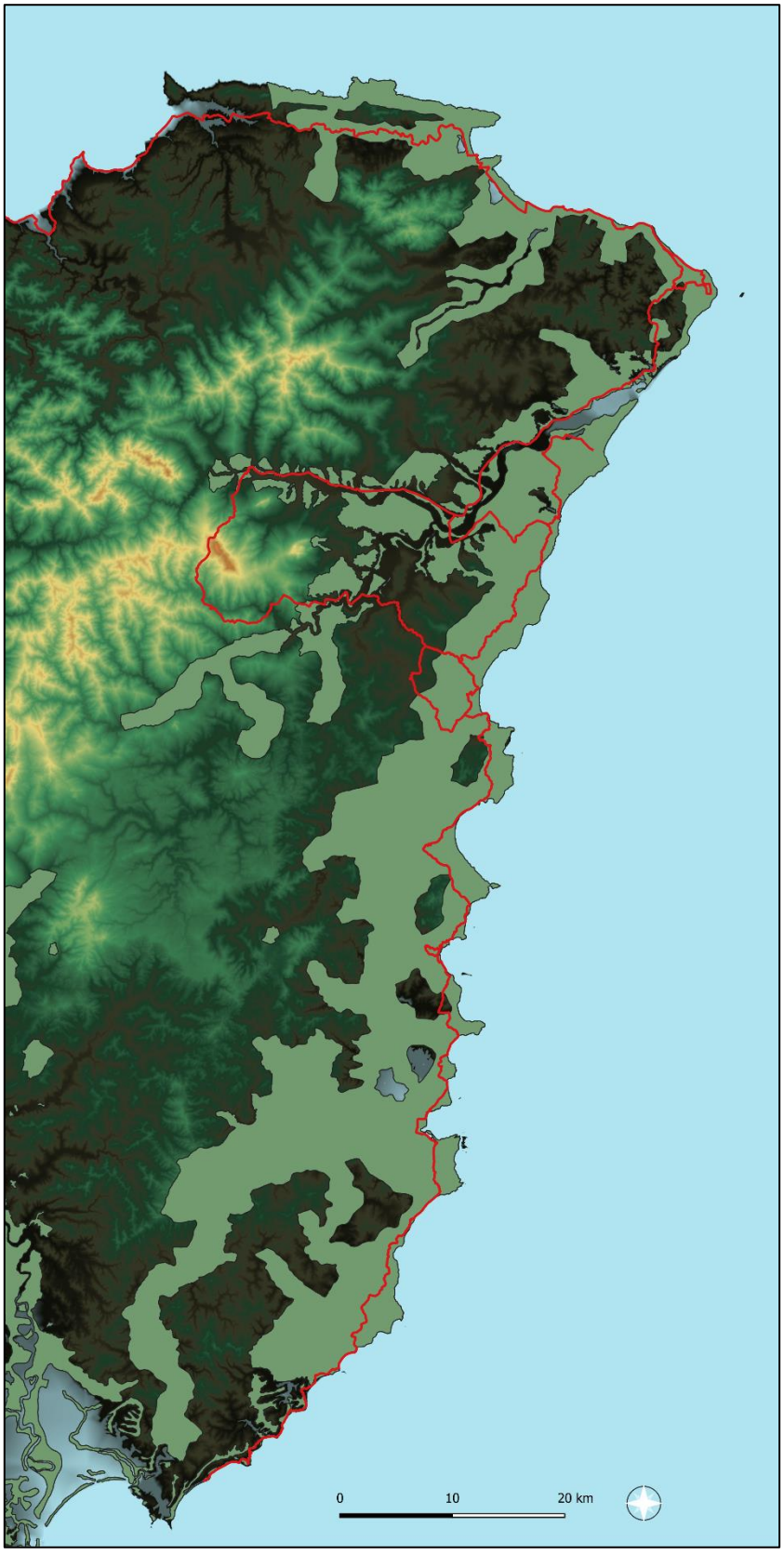

Figure 8 – Te Ara Tipuna (red line) in relation to the Gisborne District Heritage Alert Overlay (green polygon).

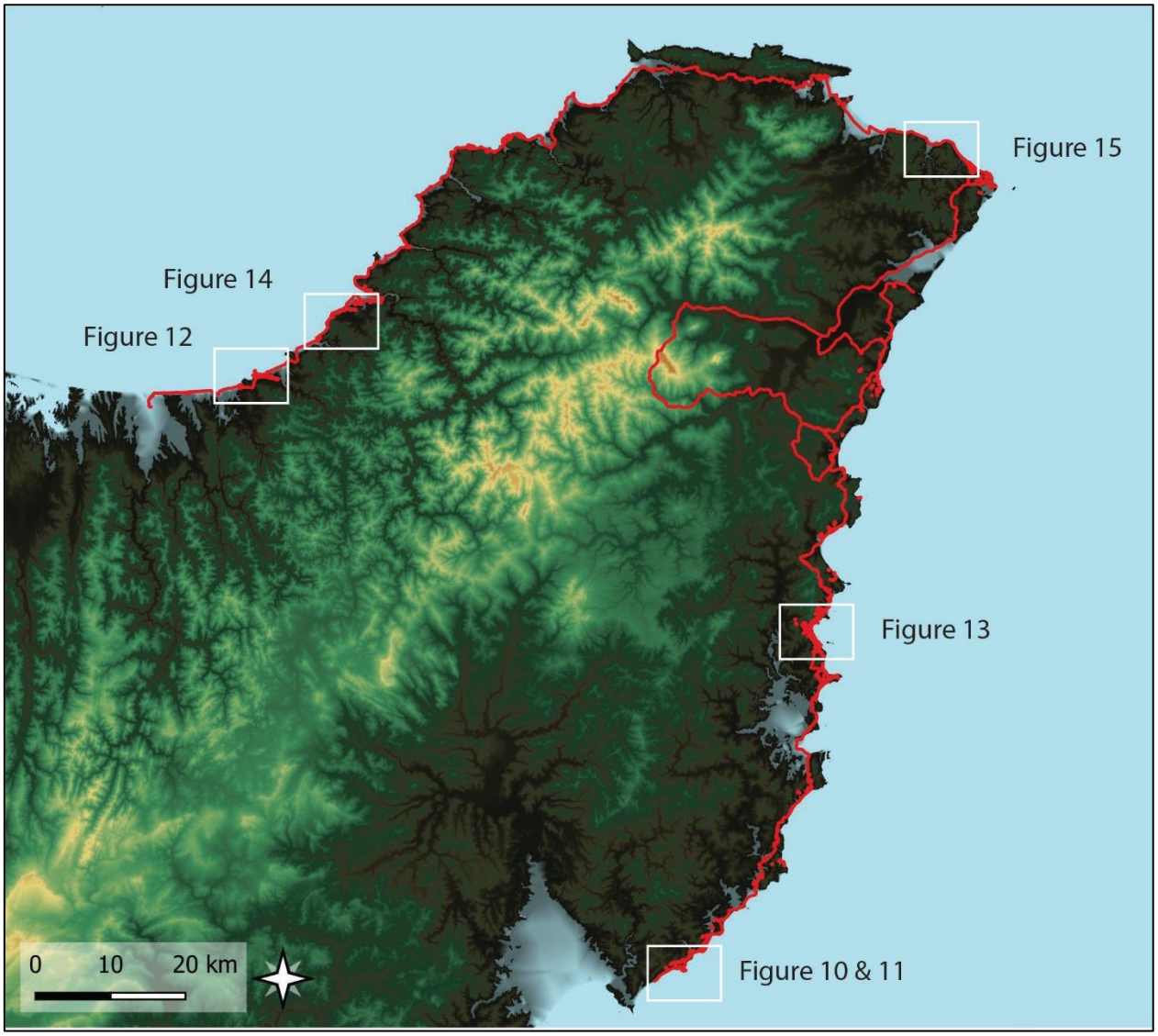

Figure 9 – Location of areas discussed as examples of Red, Yellow and Green Zones for effects on historic heritage values.

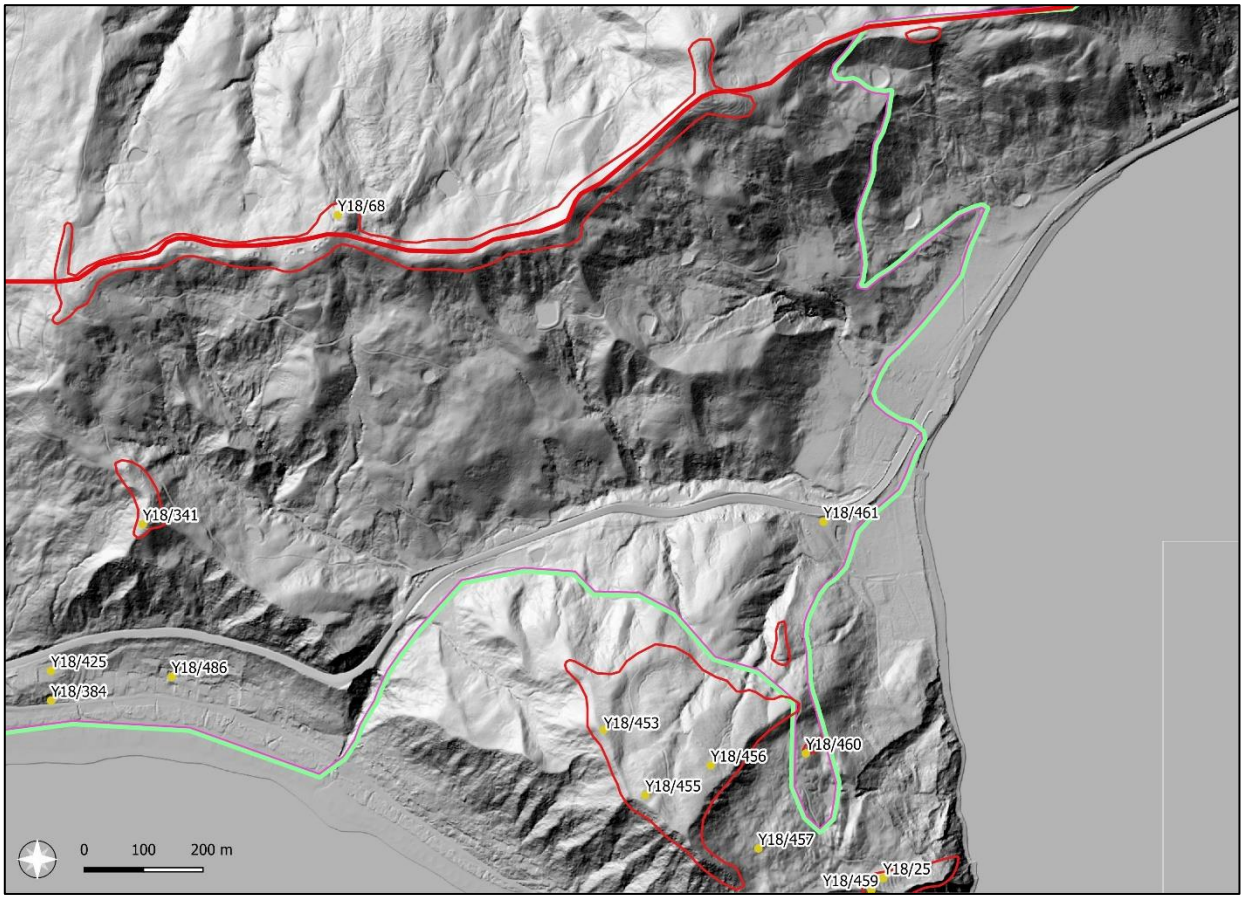

Figure 10 – Te Ara Tipuna around Tatapōuri Point. Thick Red line denotes bike track, green and purple line denotes walking and horse tracks. Archaeological sites are shown by yellow dots and site extents by narrower red polygons.

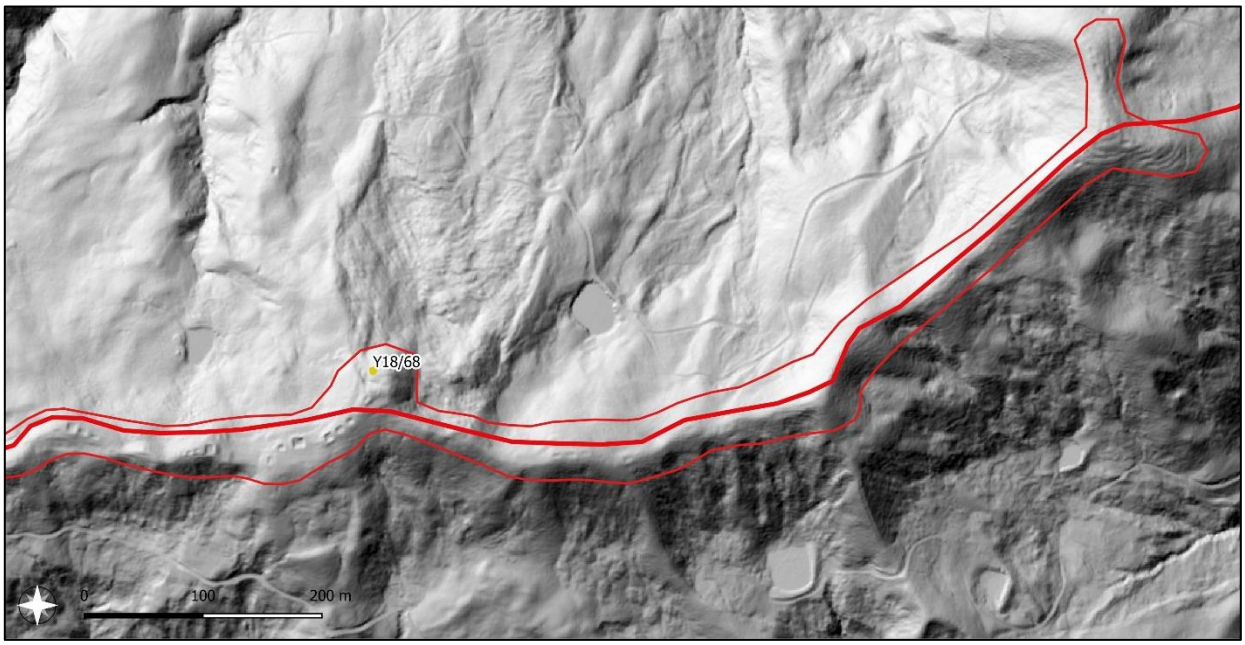

Figure 11 – A close up of Y18/68 showing visible surface features in the form of large food storage pits.

A further example is offered here to display factors that lead to designation as high potential and ways in which these effects can be managed. Figure 12 shows the trail as it runs near Opāpe, east of Ōpōtiki. The trail runs near an urupā, which will clearly be avoided when route finalisation occurs. However, Opāpe is an example of an area where direct impact on archaeological sites cannot be clearly identified, but where the surrounding archaeological and landscape context pushes the area into the high potential category. Such dune environments, particularly near surveyed urupā, have frequently been shown to contain evidence of occupation and kōiwi tangata (human remains).

Where avoidance of effects is not possible, the effect may be minimised by trail construction techniques that reduce the scale and extent of ground disturbance required – such as building up the track surface rather than excavation, and the use of ground screw anchoring techniques rather than conventional hand or mechanical digging.

Mitigation of effects would be provided by appropriate archaeological monitoring, investigation and recording as required by the provisions of the Heritage New Zealand Pouhere Taonga Act 2014.

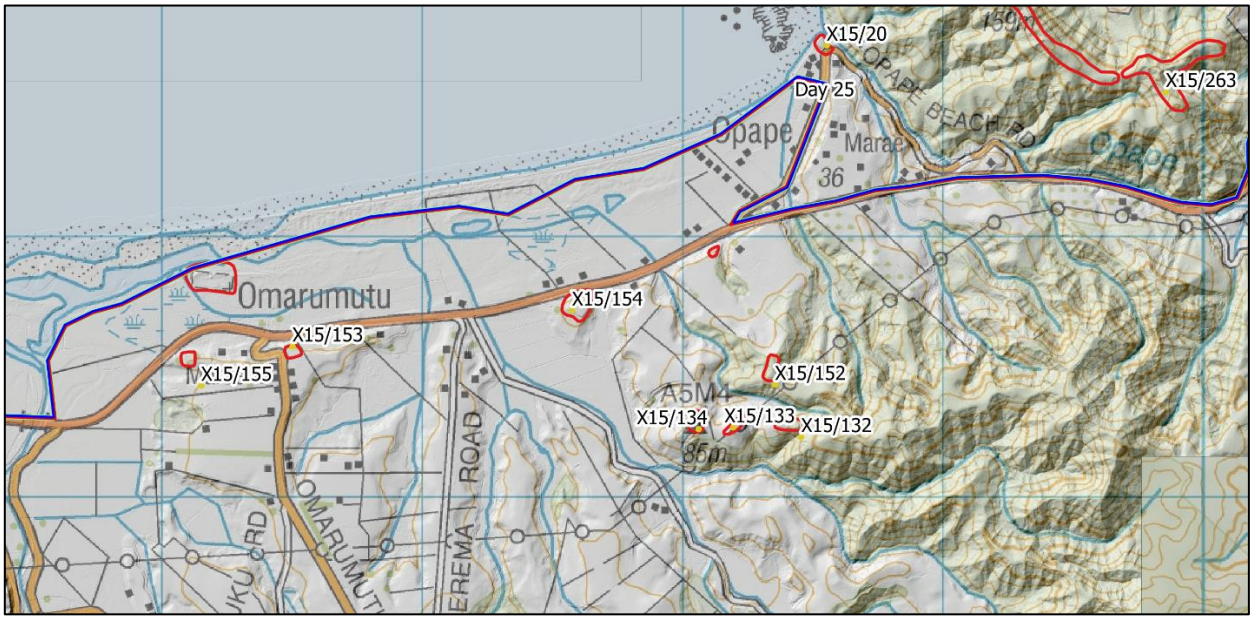

Figure 12 – Near Opāpe the trail passes near a known urupā and across a dune/coastal wetland environment which is likely to contain unrecorded archaeological sites.

7.2 Yellow Zones

In many cases Te Ara Tipuna progresses across landscapes without entering the extent of known historic heritage places or archaeological sites. Nevertheless, in some instances, the presence of secondary evidence for historic occupation or the cultural/landscape context of an area raises the

possibility that sites may be affected by Te Ara Tipuna. The following examples show instances where different data contributed to the designation of sections of tracks as Yellow Zones.

Figure 13 shows the projected extent of Māori gardening in Anaura Bay based on sketches made from the deck of HMS Endeavour in 1769. While these extents are not precise, it is highly likely that the flat coastal strip at Anaura contains extensive evidence of gardening.

Figure 14 shows the ara passing across an area between a large cluster of unrecorded ridge-top pā and recorded coastal pā, terraces and pits at Maraenui. It is possible, based on the site distribution and landscape context, that the trail may encounter unrecorded sites in this area.

Figure 15 is a historic survey plan (ML 1089) from 1895 showing the settlement of Horoera between Te Araroa and East Cape. The plan indicates several buildings and numerous named places connected with traditional occupation by Māori. Moreover, several cultivation areas are located near Hautai Beach where the trail is planned in a corridor separate from the current road.

Yellow zones require additional archaeological assessment and advice when further detail of construction methodology and finalised routes are available. That assessment and advice will be used to determine whether areas categorised as yellow zone can be reassigned to either green or red zones.

7.3 Green Zones

There are numerous instances where Te Ara Tipuna follows existing road or track corridors. In most cases significant earthworks have been carried out to establish the corridors and, as such, these areas are regarded as having a low potential for effects on intact heritage places. The potential for effects on historic heritage are assessed to be less than minor in these areas, therefore an Archaeological Site Discovery Protocol is the appropriate tool to manage effects in these areas.

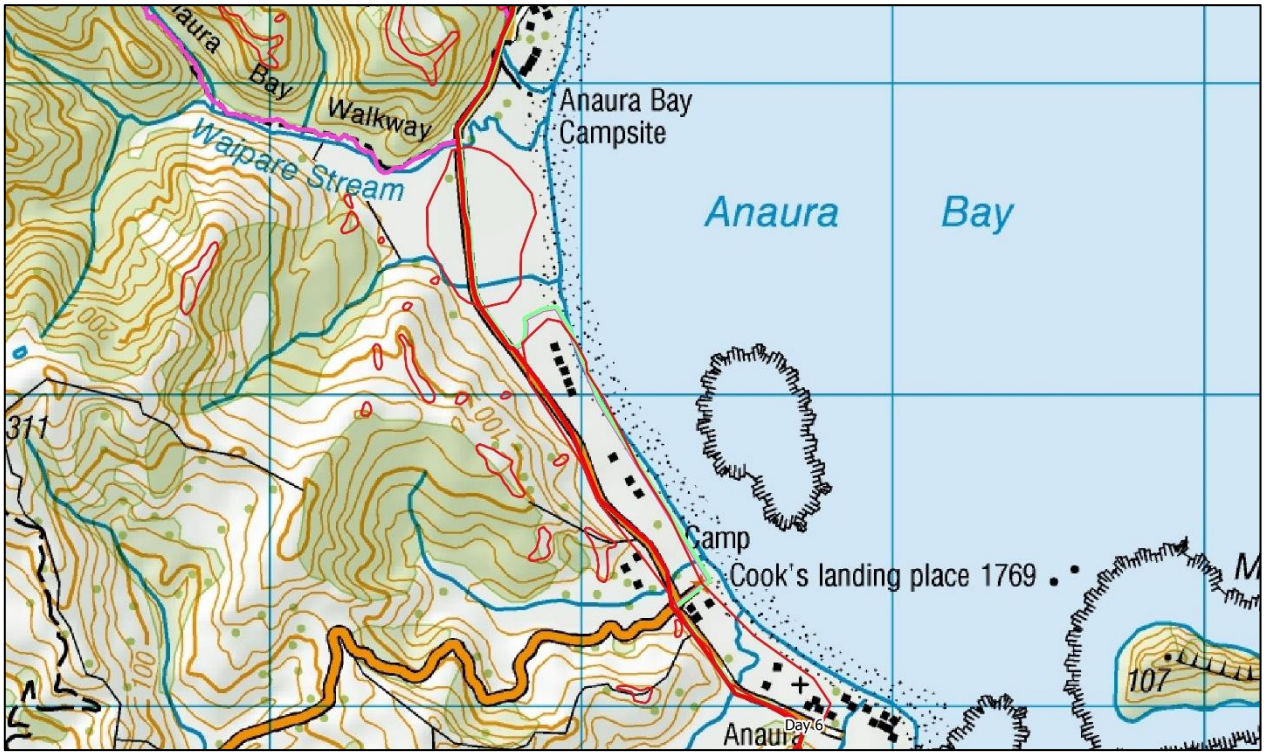

Figure 13 – A topographic map of Anaura Bay showing the probable extent of Māori gardening on the coastal flats. This area is crossed by Te Ara Tipuna.

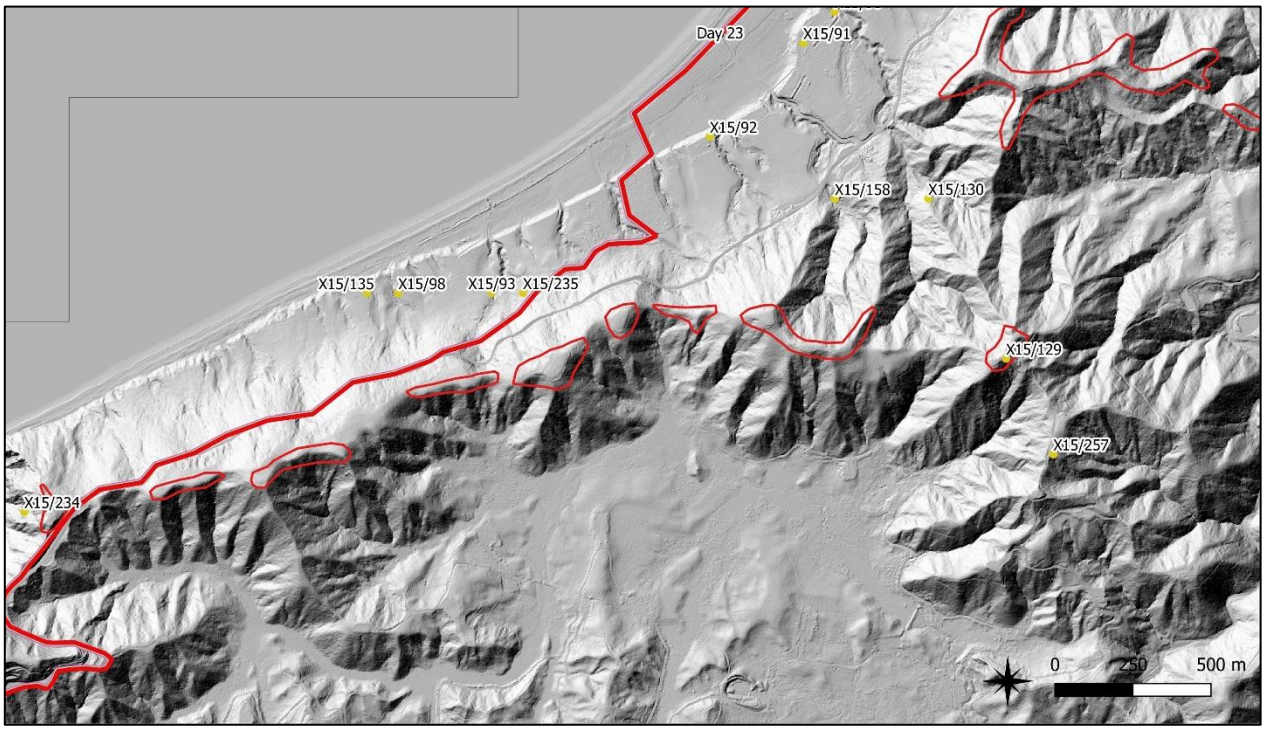

Figure 14 – A LiDAR-derived hillshade model of Maraenui, Bay of Plenty. Here the trails move across a hillside beneath the current road line where it is possible unrecorded archaeological sites are present.

Figure 15 – ML 1089 (1895), a survey plan showing houses and enclosures associated with Horoera. Elsewhere there are a number of named places and cultivations marked.

8. Te Ara Tipuna - Heritage Benefits

As discussed above, Te Ara Tipuna traverses a rich and unique archaeological and cultural landscape. Some places in the landscape are well-known, such as Hikurangi maunga, but many sites remain obscure, or may only be revealed by ground disturbance. Te Ara Tipuna is envisaged as a trail that reconnects people with ancestral landscapes through the ability to visit and physically experience the place.

Te Ara Tipuna also offers a unique opportunity to raise the awareness of the wider visitor population to the people, places and past of Te Tairāwhiti and Te Moana a Toi.

The trail offers the opportunity for the public to access a number of well-preserved archaeological sites, which will enhance the amenity value of many sites. The visitor experience and understanding of places will also be aided through the provision of interpretation. Careful routing of the track in combination with planting and devices to guide movement will in many cases improve the conservation of sites by enhancing site stability and condition.

Mitigation of effects through the provisions of the Heritage New Zealand Pouhere Taonga Act, providing for appropriate archaeological monitoring, investigation and recording will also enhance understanding of the nature and extent of the archaeological resource of Te Tairāwhiti and eastern Te Moana a Toi.

9. Summary and Recommendations

Te Ara Tipuna consists of ~500km of trails linking Tūranganui-a-Kiwa to Ōpōtiki. The ara passes through a rich archaeological and historic heritage landscape. Systematic archaeological surveys in Gisborne and Ōpōtiki Districts have recorded a number of sites primarily related to Māori occupation, but large tracts of land have not been surveyed. Thus, it is highly likely that the observed density of sites is an under-representation of what remains.

This report designates sections of Te Ara Tipuna into zones based on potential effects to archaeological and historic heritage sites (see shapefile provided electronically and attached maps in Appendix I). The conditions of each zone require different measures to ensure the appropriate management of sites. These are outlined below.

- In Green Zones the possibility of effects on archaeological sites and historic heritage places is assessed to be very low. Green Zones are characterised by the use of formed tracks, low-use roads or highly modified areas where it is highly unlikely that archaeological or historic heritage features were present or remain *in situ*. The potential for effects on historic heritage are assessed to be less than minor in these areas, therefore an Archaeological Site Discovery Protocol is the appropriate effects management tool in these areas.

- Yellow Zones represent areas where there is no direct evidence of effects, but where secondary evidence or specific landscape context suggests sites may be present. Yellow zones require further archaeological assessment and advice when further detail of construction methodology and finalised routes are available. That assessment and advice will be used to determine whether areas categorised as yellow zone can be reassigned to either green or red zones.

- Red Zones are those where there is clear evidence that Te Ara Tipuna passes over or through archaeological or historic heritage sites. Like Yellow Zones, further archaeological assessment is required in these areas to identify the specific effects of track construction on sites. This assessment will follow Heritage New Zealand Pouhere Taonga guidelines and will include archaeological field survey and fine-grained desk-based analysis. In areas where the further assessment identifies construction of the ara will have effects on archaeological sites an application will be made under the provisions of the *Heritage New Zealand Pouhere Taonga Act* 2014 for a general authority to modify or damage archaeological sites prior to all ground disturbing works. The effect on sites will be mitigated in a variety of ways including, modification of the route to avoid visible surface features, archaeological monitoring and excavation and construction methodologies that minimise the potential for effects and limit on-going visitor impacts.

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Appendix I – Heritage Zones (red, yellow, green) Across Each Day

DAYS ONE & TWO


Day 3
Waihau Bay
Waihau Beach
Waihau Bay
Pakaraa River
Puatai Beach
Waiharehare Bay
Gable End Foreland
Gable Islet
Day 2
Whangara
Whangara Island

DAY 3


Tolaga Bay
Substn
Day 4
Sch
Marae
Hauiti
Marae
HAUITI RD
MAIN ROAD
RANGIUIA RD
Airstrip
WHARF RD
Camp
Hole in the Wall
Mitre Rocks
Cook's Cove
Te Pourewa
Cook's landing place 1769
Cooks Cove Walkway
Pourewa Island
Blow hole
Titirangi
108
131
Maikaika
Kaitawa Stream
SHELTON ROAD
Titirangi
1279
343m
Wairere Beach
104
35
Whakahamino Stream
A8G8
69m
246
Waihi Beach
208
Waihau
146
262
190
Takirau Stream
Mahanga Stream
202
Hapenui Stream
258
Waihau Stream
Waihaukeke Stream
216
Loisel's
Waihau Beach
Day 3
38° 25'

DAY 4


Kaiaua
Bay
Day 5
Waihekura
Stm
Fenlands
ROAD
WHAREKAKA
ROAD
WATSON RD
6
Mangaopeka
Stm
KAIAUA
166
100
Paerau Point
ROAD
Wharekaka
Waikirikiri
Stm
Karaka
Bay
River
144
Marama
Tāwhaua
Puketawai
Marae
Waitapu
Stream
56
162
Te Karaka Point
152
Tatarahake Cliffs
Track
Stream
Ihunui
A8FR
91m
FORSTER ST
Camp
BANKS
STREET
Substn
Tolaga
Bay
Tolaga Bay
Day 4
Sch

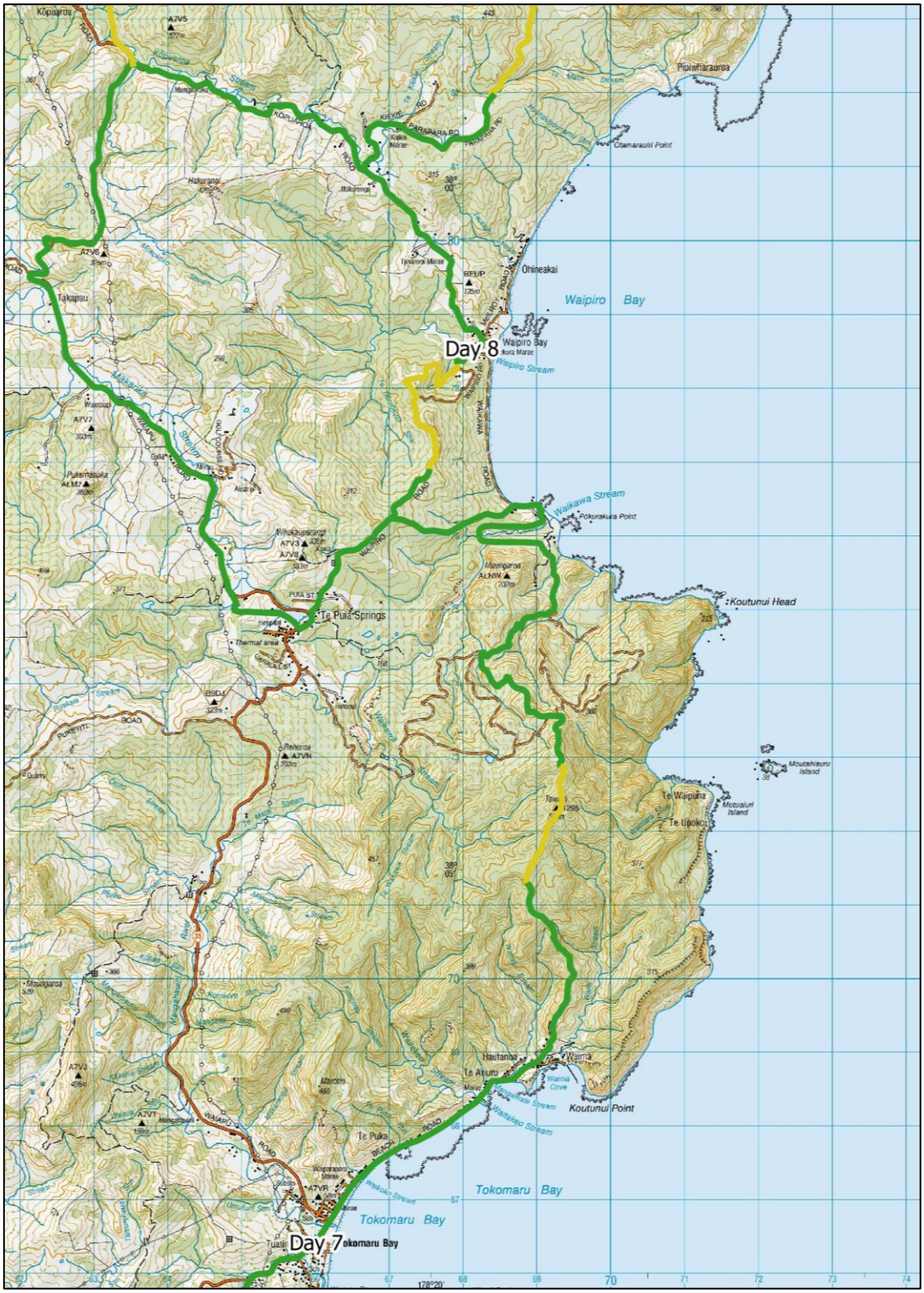
DAY 5


Day 6
Marae
107
268
282
Stream
Mārau
Beach
Marau Point
Kaiaua
Mārau
A6AG
277m
257
Kaiaua
Waiokahu
Stream
Tokatea Rocks
Kāpuni
Stream
132
Kaiaua
Bay
Day 5
50
51
52
65
66
67
69
70
47
46

DAY 6


Tokomaru Bay
Day 7
Tokomaru Bay
Waiotu Stream
178°20'
Hikutū Rock
Ongaruru
Tokomaru Bay
Airstrip
Tūtira
Waihoa
Māwhai Point
Waioue Stream
Motuhina Island
Anaura Bay Campsite
Anaura Bay
Cook's landing place 1769
Motuoroi Island
Day 6

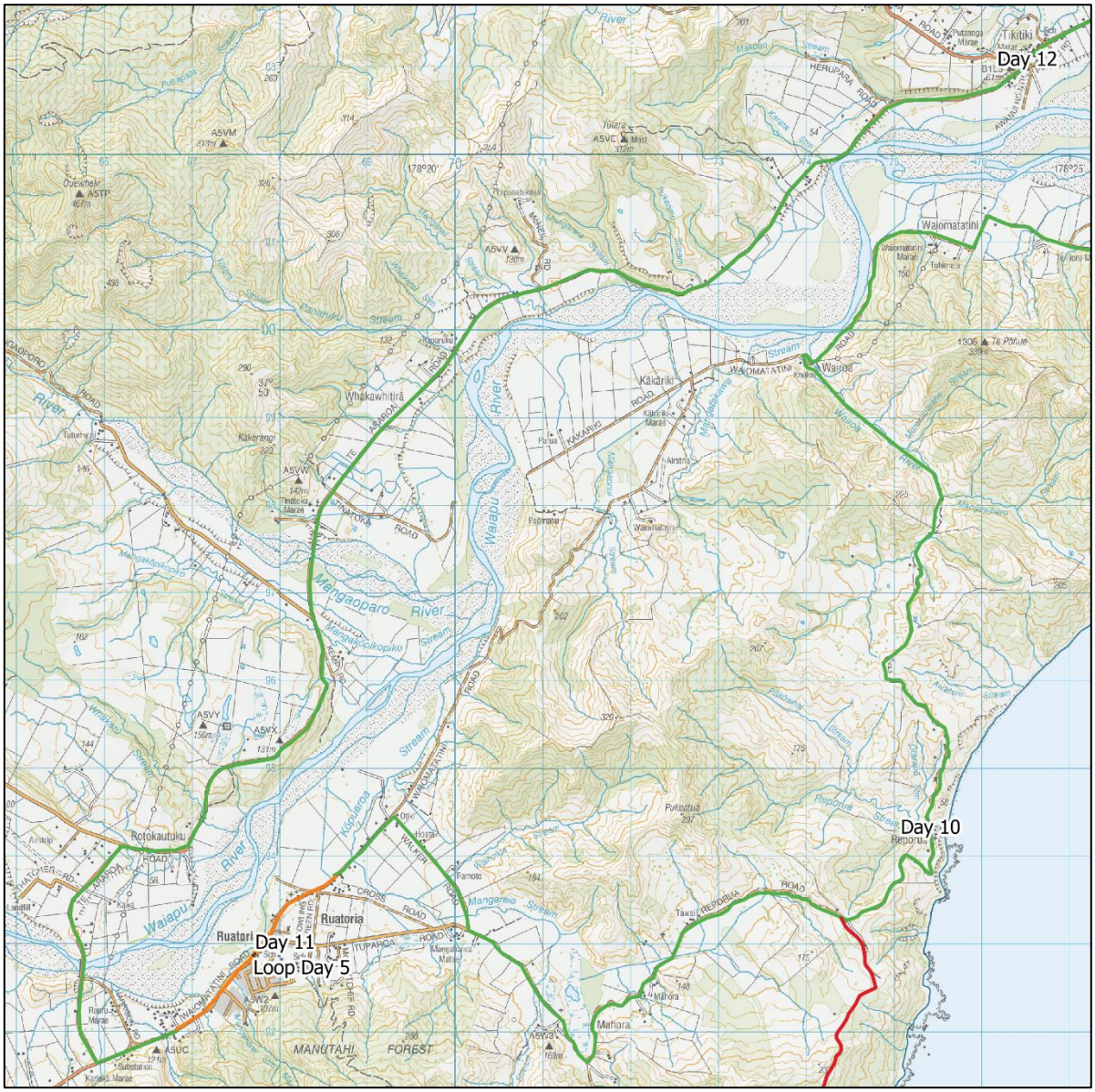
DAY 7


Day 8
Day 7
Waipiro Bay
Tokomaru Bay
Koutunui Point
Koutunui Head
Te Puia Springs
Ohineakai
Takapau
Wakawa Stream
Waipiro Stream
Tokomaru Bay

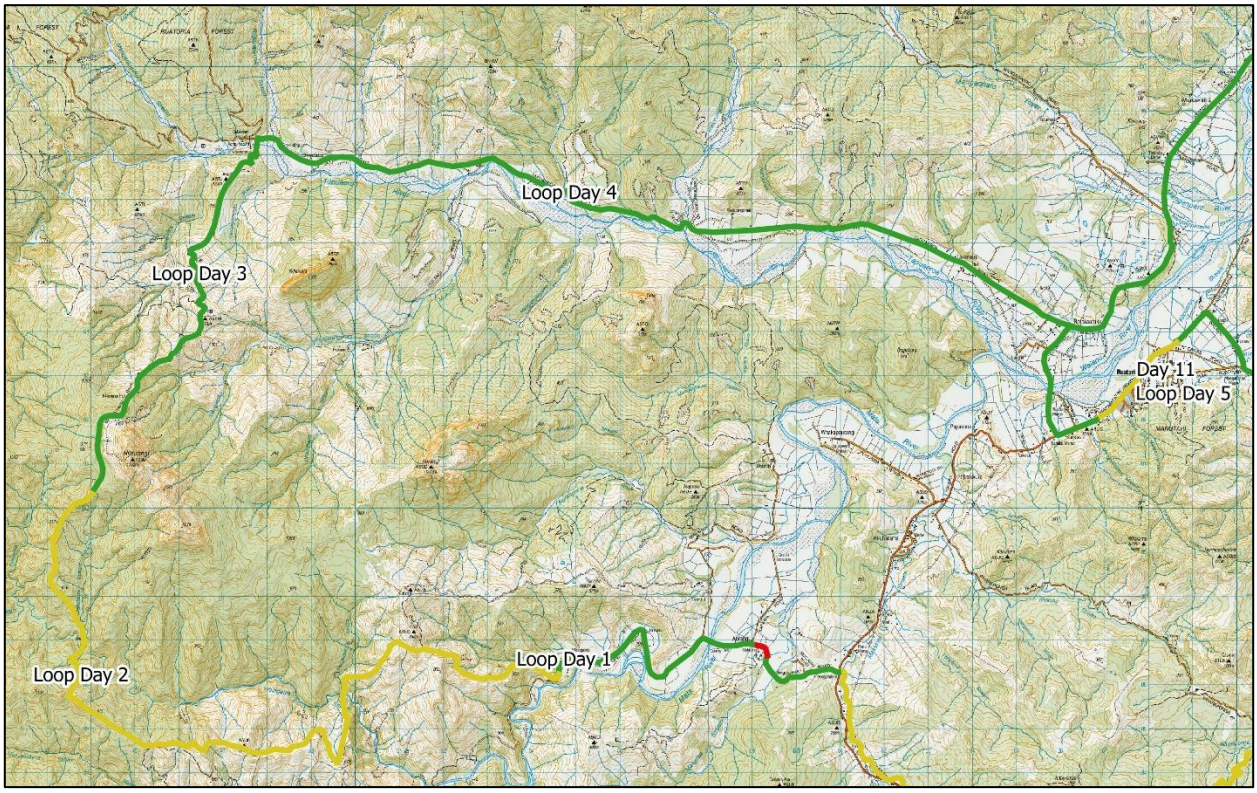
DAY 8


Day 10
Ruatoria
Day 11
Loop Day 5
Mahora
Koutuamoa Point
Tūpāroa
Kaimoho Point
Day 9
Whareponga
Whakahawai Point
Whareponga Bay
Piowharauroa
Otamarauiri Point
Ohineakai
Waipiro Bay
Day 8

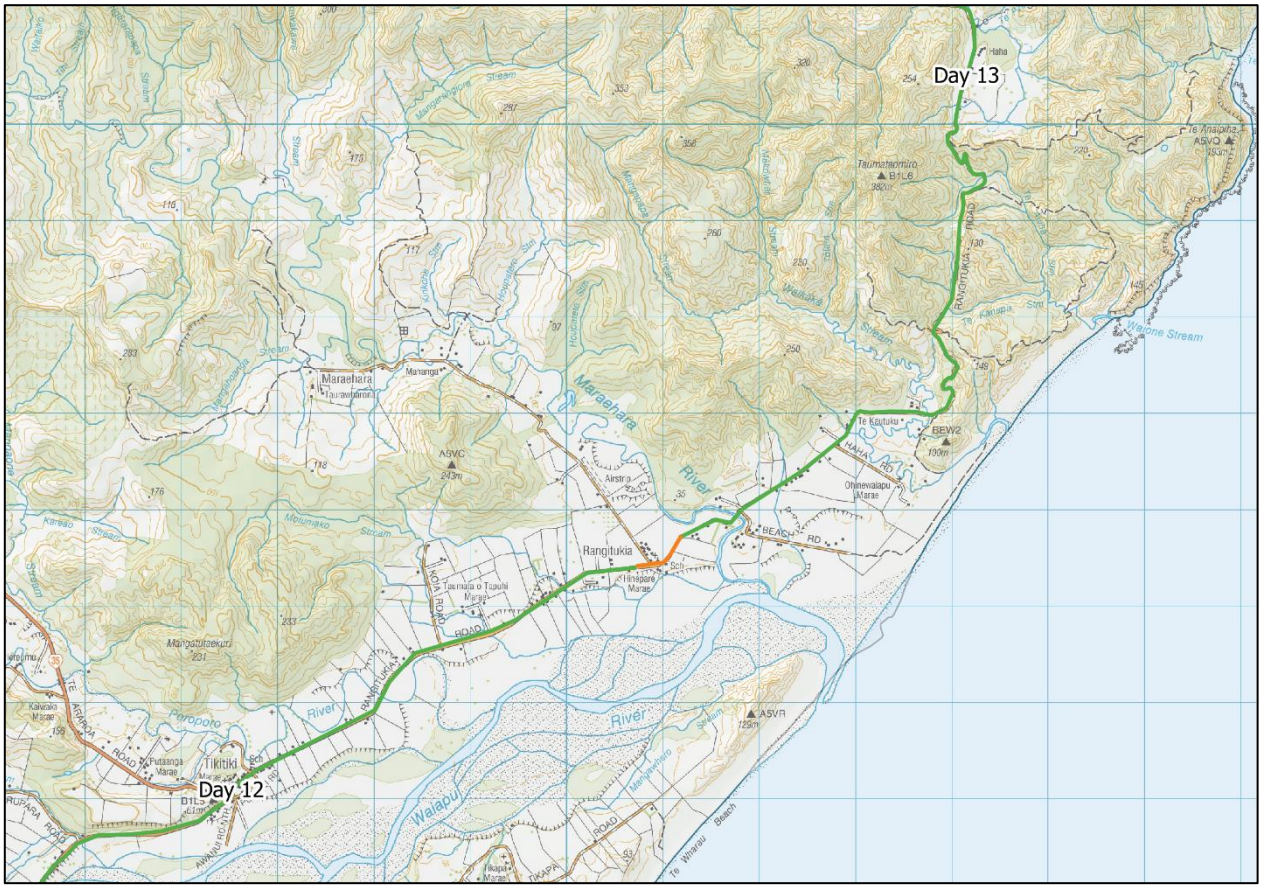
DAY 9, 10 & 11


Day 12
Day 10
Day 11
Loop Day 5
Tikitiki
Waiomatatini
Kākāriki
Whakawhitirā
Wengaoparo River
Waiapu River
Rotokautuku
Ruatoria
Mahora
MANUTAHI FOREST
Reporua
Pukotua

DAY 12



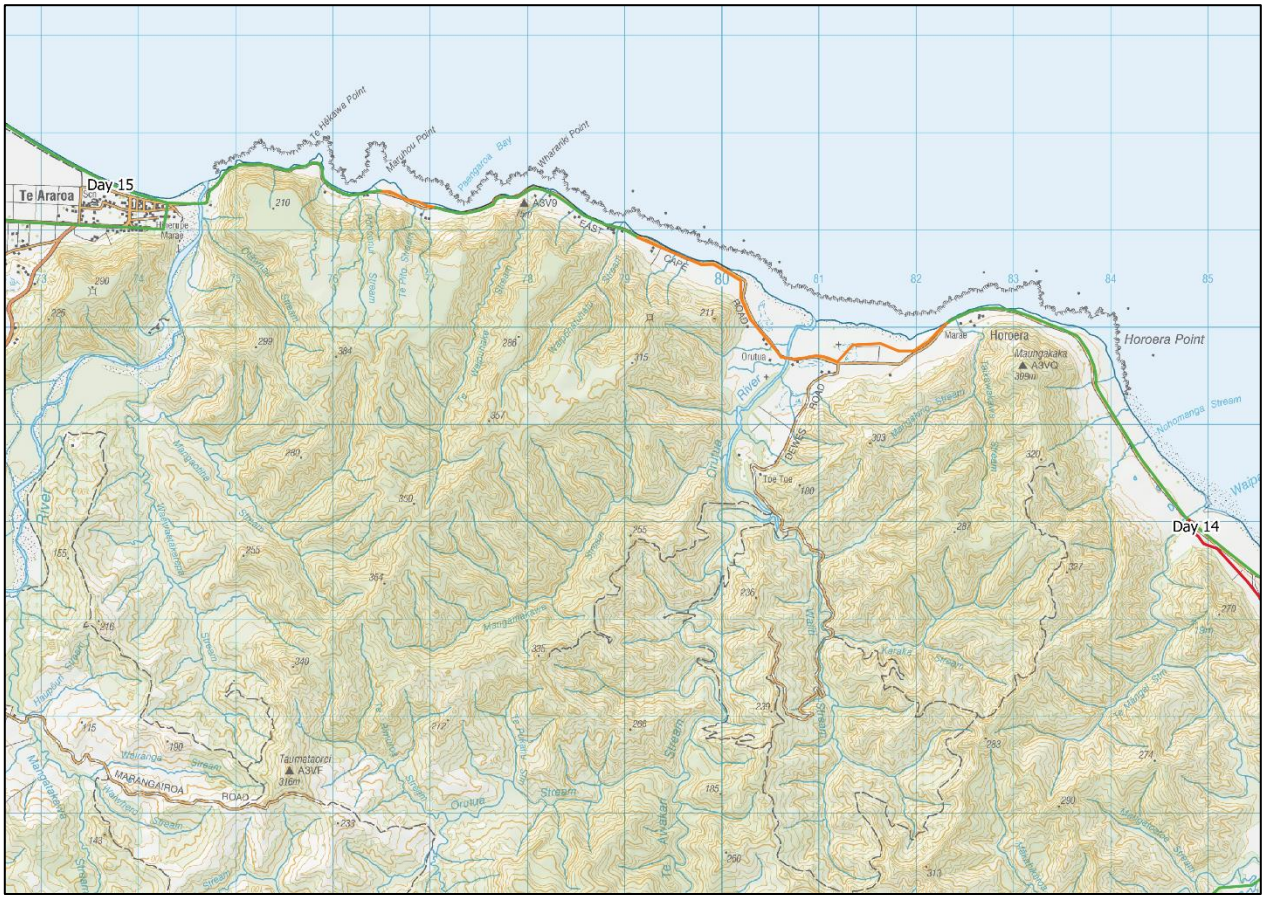
HIKURANGI LOOP


Day 13
Day 12
Maraehara
Rangitukia
Tikitiki
Te Kautuku
Ohinevaiapu Marae
Putaanga Marae
Tauwhitu Marae
Ihinapare Marae
Te Whanau Beach
Maraehara River
Paropoto River
Waiapu River
Marangai
Airstrip
Tauwhitu o Tapuhi Marae
Kawaka Marae
Ikapa Marae
Tauwhitu Marae
Mangatuaekuri
Meremako Stream
Wairoa Stream
Wharekura Stream
Kahuapa Stream
Waiaua Stream
Waiaua Stream
Marone Stream
Te Ahaiaruhe
Taumataomuro
Haha
Rangitukia Road
Tikapa Road
Te Arapoa Road
Rupapa Road
Awhiu Road
Beach Rd
Haha Rd
Tikapa
Awhiu Reserve
ASVC
ASVR
BEW2

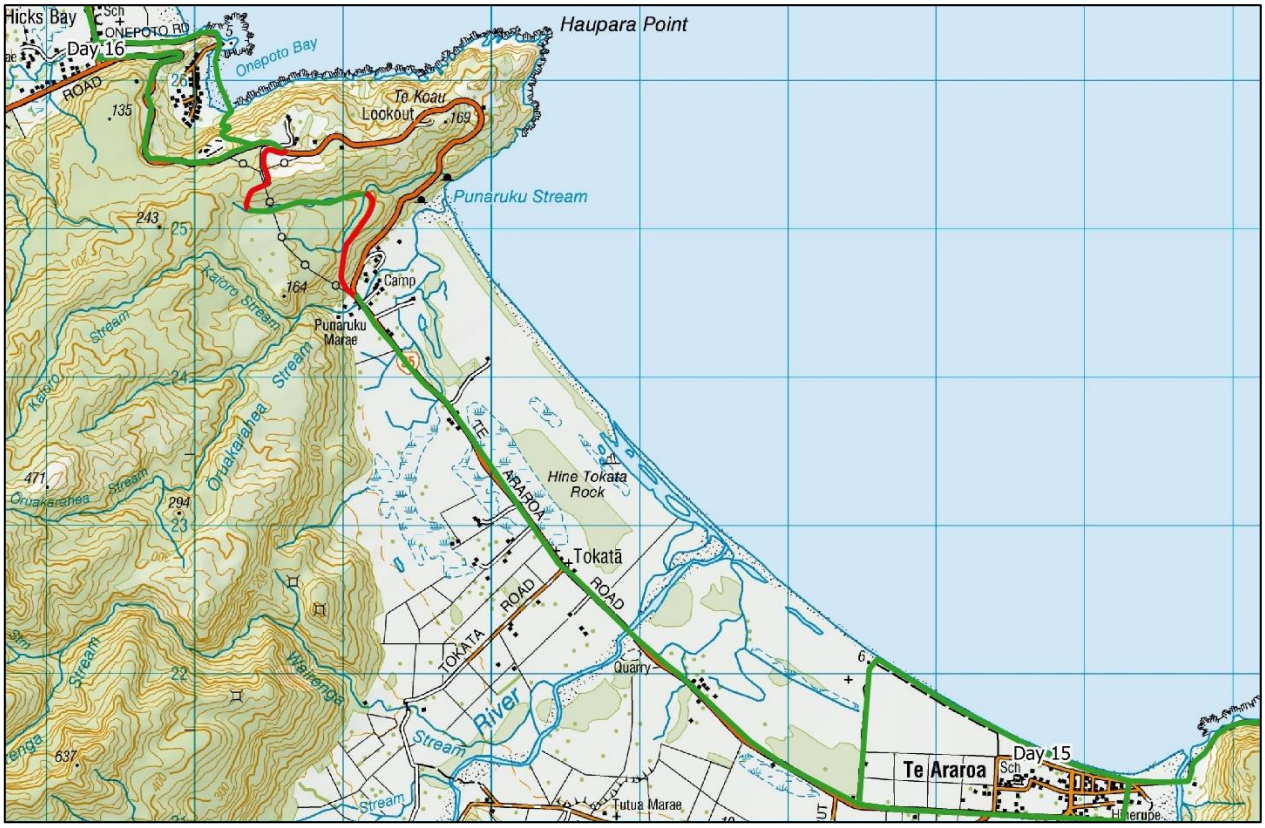
DAY 13


Day 14
Hautai
Beach
327
270
Parera
Te Mangai Stm
270
274
Te Karaka Stm
Kokomukataranga
B138
268m
290
Mangatoetoe Stream
207
170
Te Pohotelapa Stm
Rangiata
Tapu
Stream
Otiki
A3VN
144m
East Cape
Te Whare naonao Point
Whangao
Tunanui Stream
Mararaikatua
Stream
Stream
140
302
210
Parera
Stream
Te
Mangapuita
Stream
Maungaroa
Stream
148
Pakihi
97
Waikuta Stream
262
329
Te Wairau
Stream
Tapikau
Stm
Waiokarangatau
Stm
245
Maungaroa
Stm
Te Pirii Stream
Haha
Day 13
Te Pito Stream
254
Waikori Bluff
Te Anainiha

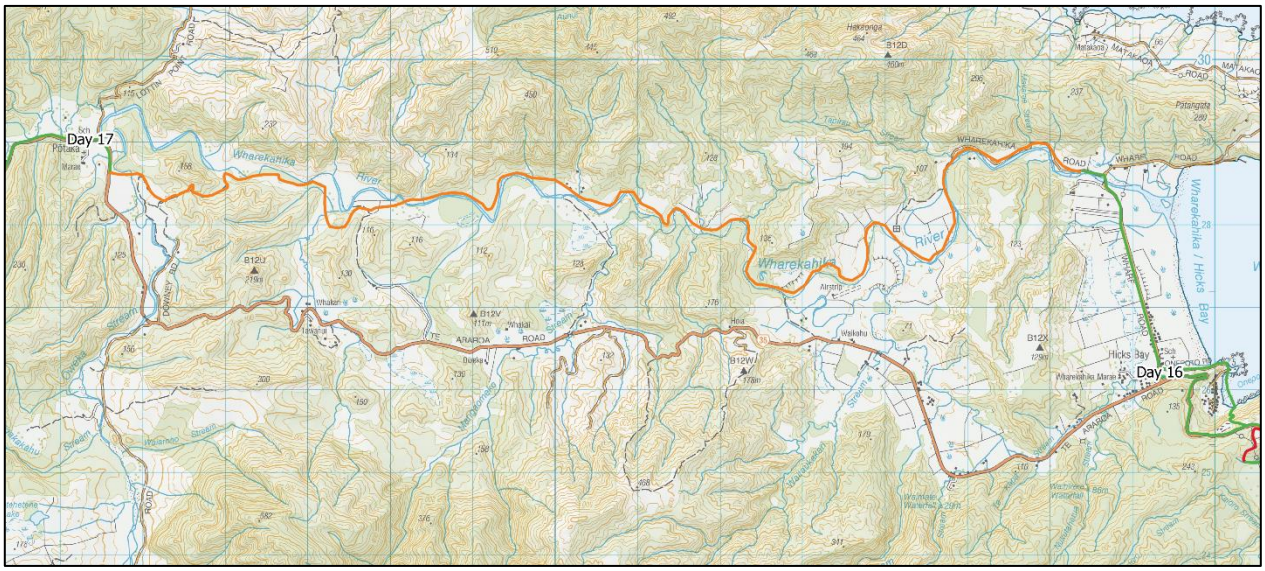
DAY 14


Day 15
Te Araroa
Te Hākawa Point
Maukou Point
Wharerēkē Point
Horoera Point
Horoera
Maungakaka
Day 14
Oruhui River
Oruhui Stream
Te Arakatea Stream
Taumatarori
MARANGAIROA ROAD
CAPE EAST ROAD
80

DAY 15


Hicks Bay
Sch
ONEPOTO RD
Day 16
ROAD
Onepoto Bay
Haupara Point
Te Koau
Lookout
169
Punaruku Stream
243
25
Camp
164
Punaruku
Marae
Kaioro Stream
Stream
Kaiuto
24
Orukakahea
Stream
471
294
23
Hine Tokata
Rock
TE ARAROA
ROAD
Tokatā
TOKATA
ROAD
Quarry
Waiarenga
Stream
22
River
637
Stream
Tutua Marae
Te Araroa
Sch
Day 15
Hīterupe

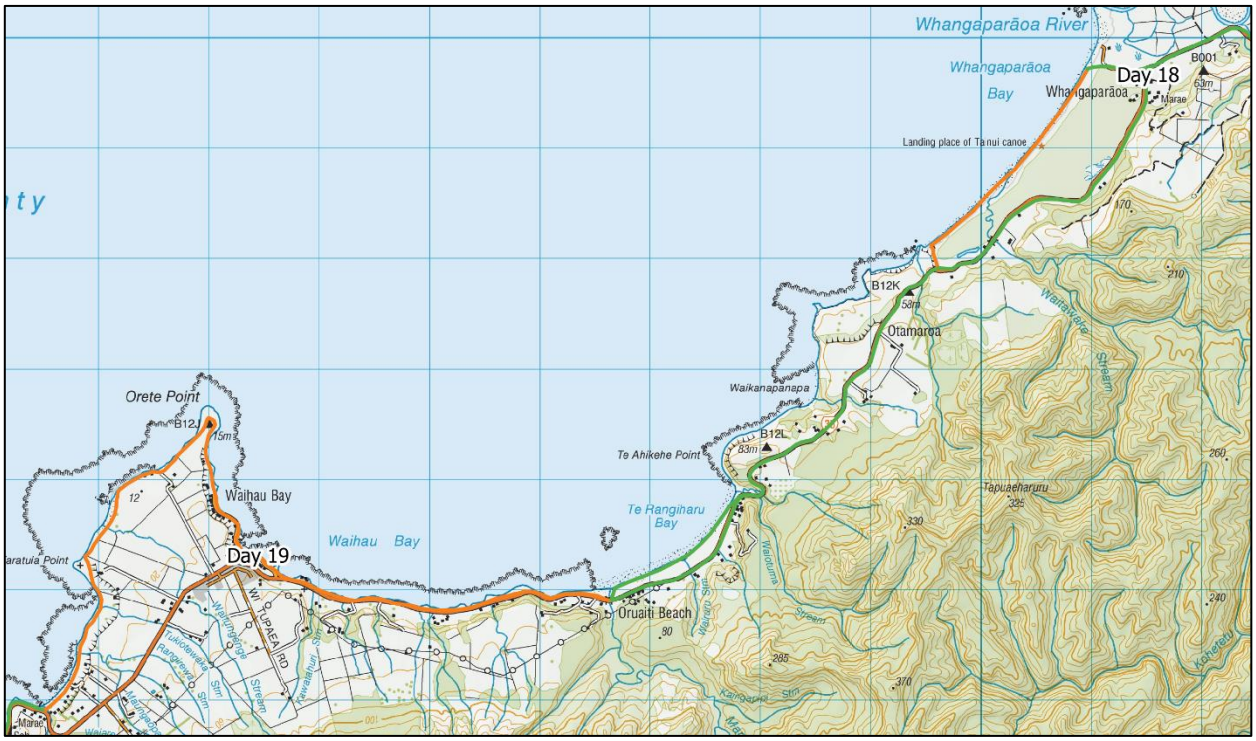
DAY 16


Day 17
Whārekahika
River
Whārekahika
River
Whārekahika / Hicks Bay
Hicks Bay
Day 16
ROAD
ARAROA
TE

DAY 17


Day 18
Day 17
Whangaparāoa River
Whangaparāoa Bay
Tahurua Point
Te Parauru Stream
Te Ahikehe Point
Te Rangiharu Bay
Waihau Bay
Orete Point
Oruaiti Beach
Otamaroa
Waikanapanapa
Tapuaeharuru
Landing place of Tanui canoe
B001
B12K
B12L
B12J
B12O
B12P
B12Q
B12R
Marae
Pā

DAY 18


Whangaparāoa River
Whangaparāoa Bay
Day 18
Day 19
Whangaparāoa
Marae
Landing place of Tanui canoe
B001
B12K
B12L
B12J
Otamaroa
Waikanapanapa
Te Ahikehe Point
Te Rangiharu Bay
Waihau Bay
Orete Point
Oruaiti Beach
Tapuaeharuru
Waitaruke Stream
Waiaruma Stream
Waiaroa Stream
Kotaretu
Marae

DAY 19


Waihau Bay
Day 19
Taratua Point
Papatea Bay
Raukokore
Papatea
Motu Kaimeanui Island
Motu Papaka Islands
Whanarua Bay
Day 20
Whanarua Bay
Karirangi
Whakaahuru
Raukokore

DAY 20


Waikawa Point
Motukotare Island
Motu Papaka Islands
Whanarua Bay
Day 20
Whanarua Bay
WAIKAWA FOREST
Te Kopua
Ohinemango Point
Marigatakauare Stream
Nharekura Point
Maraetai Bay
Kopuni Point
Matakaoa Point
Day 21
Te Kaha
COPENHAGEN
Koreu River

DAY 21


Matakaoa Point
Te Kaha Point
Day 21
Te Kaha
Hariki Beach
Maraetea Stream
Waiorore
A5LL
136m
Hokaia Creek
Maungaroa
A5LH
214m
Okahu Point
Motunui Island
Awanui
Pariokara
275
Omaio
Bay
Pokohinu Point
B1GW
57m
Day 22
Otuwhare
Omaio
A5LJ

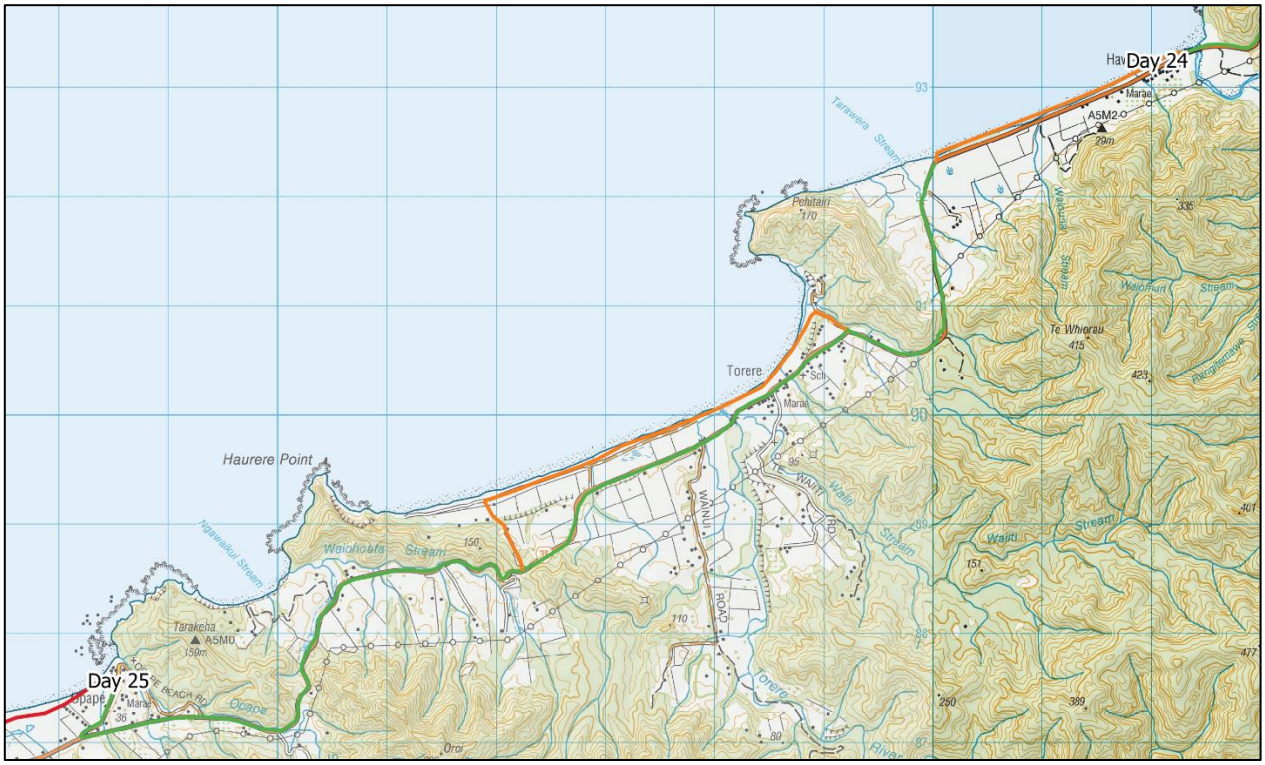
DAY 22


Day 22
Ohae Point
A5LJ
147m
Omaio
Otehirinaki
Puketapu Point
Whitianga Bay
Orangoihunui Point
177°35'
Marae
Whitianga
Tokata Point
Oariki
A5LM
245m
Tokata Track
Waihapokopoko Stream
296
483
385
Pahao Stream
Day 23
Iaraenui Marae
Sch
B1GY
42m
Houpoto
Otamakanohi
206
Pukepapa
274
88
A5LT
420m

DAY 23


Bay of Plenty
Pahao Stream
Day 23
Houpo
Pukepa
Parinui
A5LN
224m
Te Urituki tuki
Beach
Houpoto
110
Maraenui Hill
Lookout
Matawai
Stream
Whituare Bay
35
Rakaukatihi
A5LP
347m
347
Mekakaho
A5MC
71m
Haumiaroa Point
Te Puni
A5MD
83m
Day 24
186
Marae
A5M2
29m
Hawai
Te Ipuhinu
381

DAY 24


Day 24
Day 25
Haurere Point
Torere
Te Whiorau
Waiohota Stream
Tarakeha
Opape
Pehitaiti
Waiotahi Stream
Waiiti Stream
Ngawaikui Stream
Torere River

DAY 25


Day 25
Day 26
Opotiki
Tablelands
Tirohanga
Omaramutu
Waiatua
Te Here Marae
Waiaua River
Orora
Haraia

DAY 26

Appendix 10:

Cultural Impact Assessment

Te Ara Tipuna Cultural Impacts Assessment

Introduction:

This Cultural Impacts Assessment (CIA) report has been prepared by Pahou and Associates Ltd to accompany a resource consent application for Te Ara Tipuna prepared by the Planning Collective. This Cultural Impacts Assessment report will be complemented by the Archaeological, Ecological, Environmental, Recreational and Social Impact Assessment reports prepared by other members of the Te Ara Tipuna team.

Te Ara Tipuna is a multi-layered project with the whanau and whenua of Ngati Porou, Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatohea at its heart. The key focus of the project is the restoration of connections, this in enabled by building, leveraging and maintaining an infrastructure of accessways for pedestrians, cyclists, and horse trekkers; local commuters, visitors, and whole of journey hikers, bikers, and riders.

The region where the track/s are proposed will sit in what is known as Te Tairawhiti or 'the tide where the sun rises', more commonly known as the East Coast. Tairawhiti is the first region in the world to see the sunrise and it holds a huge amount of Maori culture and historic significance.

Key Limitations:

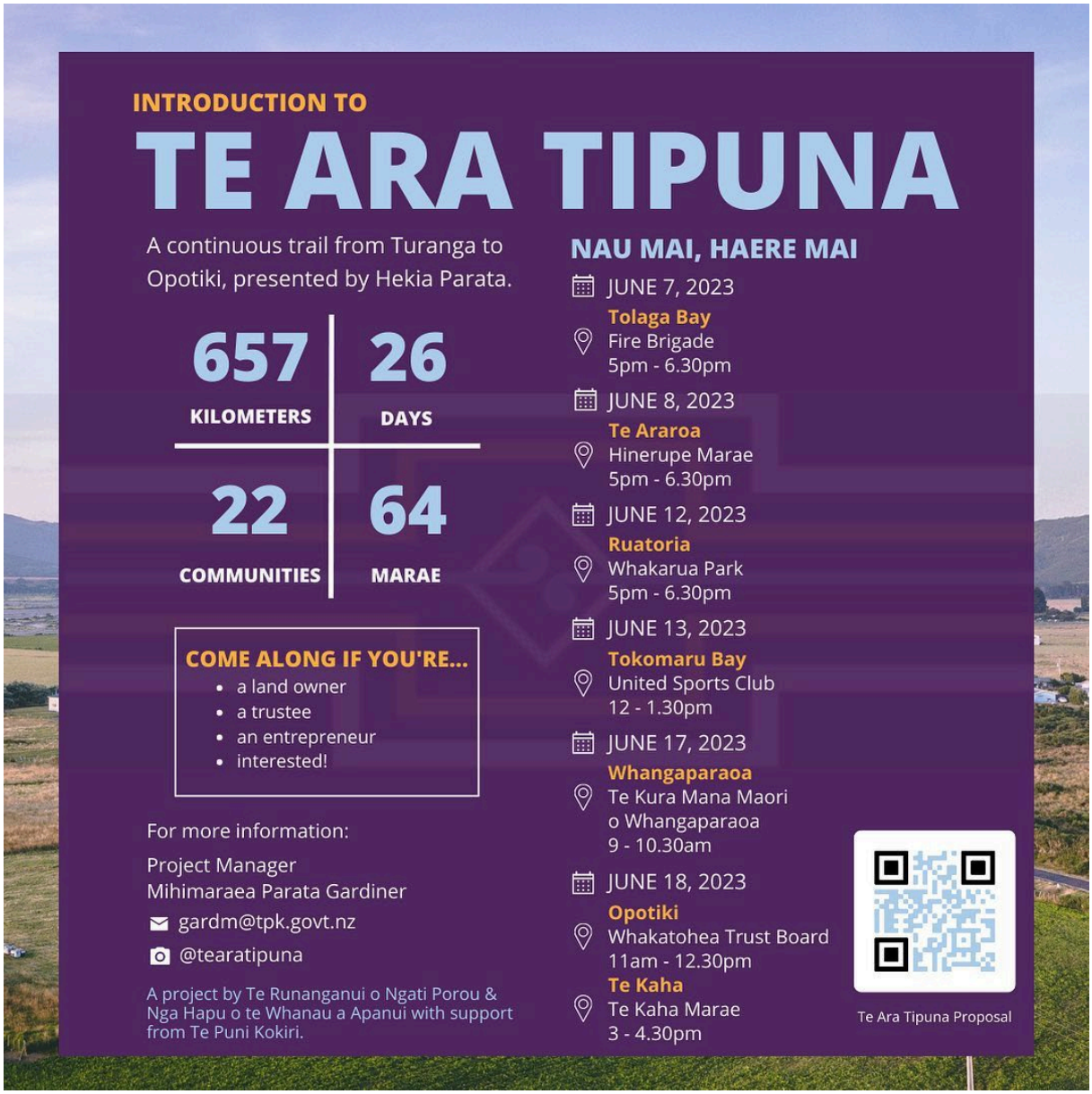
Due to the scale of the project approximately 400 land blocks, upwards of 60 Hapu, 4 Iwi, 20 communities, and the economic engagement with all key parties in this phase of the project, this CIA report will not delve deep into the actual cultural impacts for each specific site. This CIA report will set out a framework and a set of high-level principals that will form the basis of the other detailed CIA reports that will stem from it.

Notwithstanding these limitation Te Runanganui o Ngati Porou (Ngati Porou iwi authority/PSGE) has fully endorsed Te Ara Tipuna, and through Phase 2 endorsement will be sought from Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatohea

Methodology:

- The organisation that prepared this report is very familiar with the area, having been raised in East Coast and participated and contributed to a number of cultural activities and events across the region, particularly in Ngati Porou and Te Whanau a Apanui.
- Are familiar with the land blocks, landowners, hapu, marae, and iwi across the region.
- Attended a number of the hui with Landowners, hapu, Iwi members in phase 1 consultation – see figure 1
- Have an extensive network and connections with key cultural leaders across the region and the ability to engage their cultural intel and insights for specific sites/land blocks, waahi tapu and sites of cultural and historical significance.

Figure 1 - Te Ara Tipuna, Phase 1 consultation schedule



Project Summary:

In its entirety, Te Ara Tipuna is 500km traversing the rohe of Ngati Porou, Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatohea . It will engage with some of the most beautiful, rugged, and isolated land and waterways of Aotearoa New Zealand; experiencing cultural icons of marae, mountains, rivers, oceans and the unique character of its local people and communities.

Ngati Porou, Te Whanau a Apanui, Ngai Tai and Te Whakatohea have rich histories, strong cultural infrastructure, and lofty ambitions for the future of their people, communities, environment, and way of life. Te Ara Tipuna takes a bottom-up approach to building sustainable enterprise and wellness by investing in cultural infrastructure, capitalising, and enhancing existing cultural wealth and rebuilding the ethos required to ensure the culture thrives and flourishes across the region and into the future. Whenua, Whanau, Wai– Land, People, Sustenance in a virtuous circle.

Te Ara Tipuna is a catalyst for investment in sustainable infrastructure in Te Tairawhiti, manifesting as a network of ara/accessways around the East Coast for local communities and visitors to hike, bike and trek.

Te Ara Tipuna takes a different approach by seeking to create a whenua-based artery around Te Tairawhiti that will sustain cultural, economic, social rejuvenation. It provides cultural and relational connections and stimulus for businesses and employment services, and unique experiences for both the uri (descendants) of the land and the manuhiri (guests) who visit. It will provide a springboard for multi-level, intersectoral collaboration between landowners, hapu, iwi, central, local government, and the private sector to leverage cultural and environmental collateral, invigorate economic prosperity and uplift social wellbeing.

Iwi/Hapu within Te Tairawhiti and Te Tini o Toi included in te Ara Tipuna

As mentioned previously the four Iwi have rich histories and a large part of this history is shared. This is due in part to the common ancestry, Ngati Porou or Nga Tini uri o Porourangi (the many descendants of Porourangi) derive its name from their eponymous ancestor Porourangi. Te Whanau a Apanui (the family of Apanui) takes its name from Apanui Ringamutu. Apanui Ringamutu is a direct descendant of Porourangi, Apanui Waipapa identified in the image below through his daughter Rongomaihuatahi is a grandfather to Apanui Ringamutu, see figure 1 below.

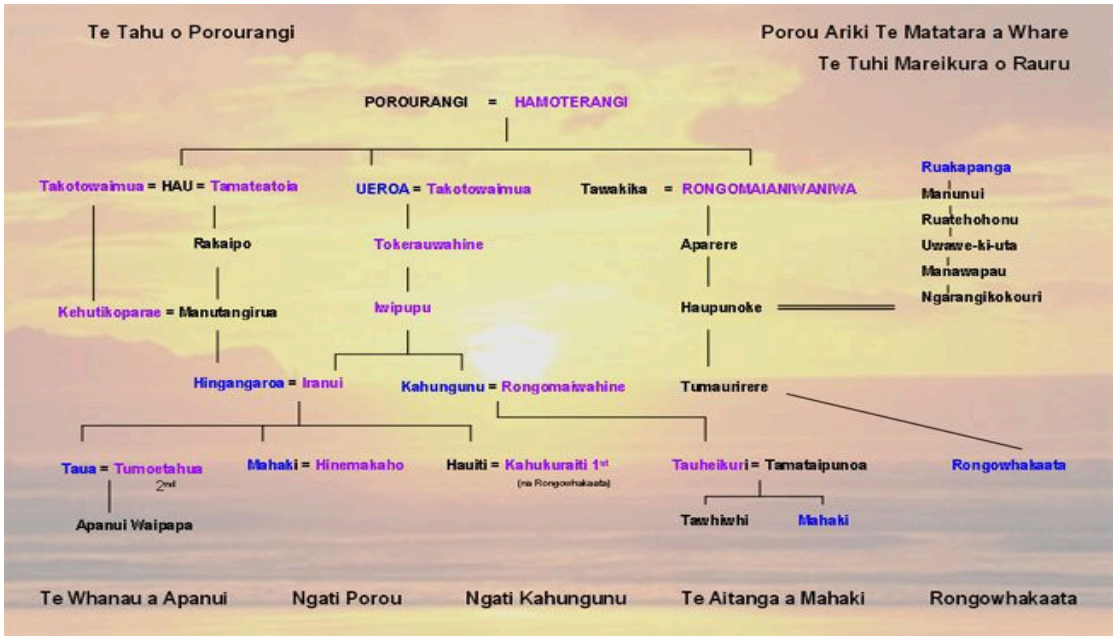


Figure 21 Te Tahu o Porourangi

It is also through this whakapapa (genealogical) table that we see the interconnectedness of the tribes that make up the Eastern seaboard of Aotearoa New Zealand. Ngati Porou and Te Whanau a Apanui have numerous historical accounts that will be rejuvenated and revived by the delivery of this project.

Table 2 - Ngati Porou geographical area - Te Puni Kokiri

Ngati Porou:

Ngati Porou define their boundary as being "mai i Potikirua ki te Toka a Taiau", Potikirua in the north and te Toka a Taiau in the south. From the south it travels along the mountains to the Raukumara mountain ranges where it moves along to Potikirua at a point called Pohatu-Whakatakataka. Ngati Porou assert their purview encompasses the area "Ko taku upoko ki tuawhenua, ko aku matimati ki te huka o te tai" - "from the peaks of the mountains to where the waves break out at sea".

Ko Hikurangi te maunga
Ko Waiapu te awa
Ko Ngati Porou te iwi

Table 3 - Te Whanau a Apanui geographical area - Te Puni Kokiri

Te Whanau a Apanui:

Te Whanau a Apanui define their boundary as being "mai i te Taumata-o-Apanui ki Potaka. Te Taumata-o-Apanui in the north to Potaka in the south, to the same northern point mentioned by Ngati Porou, however Te Whanau a Apanui call this point Pohatu-nui. From the Raukumara ranges to the tip on Whanakao stretching out to Whakaari Te Whanau a Apanui encompasses everything in between.

Ko Whanakao te maunga
Ko Motu te awa
Ko Whakaari te Puia
Ko Te Whanau a Apanui te iwi

Table 4 - Ngai Tai ki Torere geographical area - Te Puni Kokiri

Ngai Tai ki Torere:

Ngai Tai ki Torere share their ancestral boundary with Te Whanau a Apanui and Te Whakatohea. It starts at its most eastern point Tokoroa heading inland to Te Paku, Peketutu, Taungakakariki and Kaitaura. From here it turns towards the coast at Taumatakareti following along Te Rewa Rangi, Onukuroa to the Tahunatoroa range stretching to Tirohanga to two rock formations known as Tokangawekeweke and Turanga-a-nui heading back to Tokoroa.

Ko Rangiahua te maunga
Kei uta ko Kapuarangi
Ko te waitapu ko Wainui
Rere atu ki te moana o toi
Ko Ngai Tai te iwi.

Table 5 - Te Whakatohea geographical area - Te Puni Kokiri

Te Whakatohea:

Te Whakatohea share a boundary with the Ngai Tai people and encompasses an area that stretches from the Ohiwa harbour to Opape, the western boundary is at Maraetotara and the easter boundary is at Tarakeha. The coastal boundaries run inland southeast through mountainous country and join just south of Matawai.

Te Whakatohea maurua

Te Whakatohea tohe toa

Te Whakatohea tohe rau-ariki

Cultural Values

Cultural Identity

Cultural identity is defined in the Living Standards Framework 'LSF' as having a strong sense of identity; ability to be oneself; and the existence value of cultural taonga. A strong sense of cultural identity can influence peoples' sense of purpose, self-worth, belonging, and overall wellbeing.

The Ministry of Social Development (2016) states that the desired outcome in the cultural identity wellbeing domain is: New Zealanders have a strong national identity and a sense of belonging, and value cultural diversity. Everybody is able to pass their cultural traditions on to future generations. Maori culture is valued, practised, and protected.

Cultural Profile

Measuring and understanding wellbeing in the cultural identity domain is not currently as well-defined as other domains. Treasury (2019) 'Culture, wellbeing, and the Living Standards Framework: A Perspective' discusses the dimension, suggesting potential additions to the LSF to be announced in 2021. Current measurements include % of Te Reo Maori speakers and % of adults

who said it was easy to express their identity in New Zealand. As the table below highlights, East Coast communities have a high proportion of Te Reo Maori speakers.

Table 12: Te-Reo Maori speakers, 2018 census

At 17%, the Gisborne region has the highest % of Te Reo speakers in New Zealand by a significant margin (Northland is the second highest region at 9%).

LSF data on ability to express identity is less insightful, with less range between regions. Auckland ranks lowest at 82% and rest of South Island highest at 89.3%. Northland / Bay of Plenty / Gisborne rank at 82.4%.

Given the high proportion of Maori in the region, another potential indicator of the status of the cultural identity dimension could be the degree of schooling offered in Te Reo Maori. From Tolaga bay to Omaramutu (the town before Opotiki), there are 19 schools, of which:

- five schools teach fully in English;
- seven schools teach fully in Maori; and
- seven schools teach some students in Maori.

Relative to other regions, this indicates a high level of teaching in Te Reo Maori, a positive indicator for the cultural identity wellbeing dimension for young and future generations.

Given the strong Maori heritage in the region, it follows that the East Coast ranks relatively high in regard to cultural identity. From a wellbeing cost-benefit analysis perspective, the key question that follows is whether this strong cultural identity could play a role in improvement of natural, human, social and financial capital within the region.

Cultural Infrastructure

Ngati Porou:

- Marae – 48
- Kura Kaupapa Maori – 5
- School /High School – 11
- Rohenga Tipuna Clusters – 7
- Senior Kapa Haka groups – 5 (that have competed at Te Matatini over the last 15 years)
- Taurahere Network in every major centre across Aotearoa NZ and a number of them in Australia.
- 92,349 people - Ngati Porou population (2018 Census data)
- 15,606 people – Ngati Porou living in the Tairawhiti region (2018 Census data)

Te Whanau a Apanui:

- Marae – 13
- Kura a Iwi – 1
- Kura Kaupapa Maori – 1
- Schools / High Schools – 1
- Senior Kapa Haka groups – 2 (that have competed at Te Matatini over the last 15 years)
- Taurahere network in every major centre across Aotearoa NZ and a number of them in Australia

- 16,689 people - Te Whanau a Apanui population (2018 Census data)

Ngai Tai ki Torere:

- Marae – 1
- Kura – Te Kura o Torere
- 2,301 people – Ngai Tai ki Torere population (2018 census data)

Te Whakatohea:

- Marae – 8
- Kura – 8
- High School – 1
- Senior Kapa Haka groups – 2 (that have competed at Te Matatini over the last 15 years)
- 16,095 people – Te Whakatohea population (2018 Census data)

Kawa:

Can be described as the framework in which to operate. Kawa for its purpose is fixed and allows for actions to be carried out in a way that keeps people safe, connected and protected. Kawa is for the most part inflexible due the process of establishing and setting in place the kawa – this process and corresponding ceremony is known as 'Te Tainga Kawa' or Kawanga tapu' which literally means 'to firmly set in place the kawa'. It is for each marae, hapu and Iwi to determine what is the Kawa for their area.

The Kawa for the marae in Ngati Porou and Te Whanau a Apanui as stated by renowned carver Pine Taiapa is 'he manaaki i te tangata, nga manuhiri, te hunga marae, te iwi kainga' to care for people, to look after your guests, look after the people who uphold the dignity of your marae and the wider community". It is through this Kawa that we derive the framework in which we use to prioritise, assess and evaluate this project.

Manaaki i te tangata
Manaaki i te manuhiri
Manaaki i te hunga marae
Manaaki i te iwi kainga

Tikanga:

Tikanga operates in the Kawa framework. Tikanga can be flexible, they are actions carried out in a way that keep people safe, connected and protected. Some tikanga have been adapted, adopted, and created to help fulfil the obligations to being safe, connected and protected. Some Tikanga have also been disused in order to adhere to more stringent Tikanga, there's a saying 'me takahi tikanga, e ora ai te tikanga', 'tikanga must be trampled upon to allow for other tikanga to survive and or thrive". It is up to each Hapu and Iwi to determine the prioritisation of their tikanga, which Tikanga need to be followed and which tikanga can be more flexible to allow for other tikanga.

Waahi Tapu:

Waahi tapu means a place sacred to whanau, hapu and Iwi in the traditional, spiritual, ritual, mythological and religious sense. With regards to waahi tapu there is also a hierarchy of sorts dictated by Tikanga operating within Kawa that determines how 'tapu' 'sacred' a particular area is. Tikanga also sets out the protocols required to be undertaken while engaging with waahi tapu. Waahi tapu has specific meanings for the distinct groups mentioned above. Any activity that is to take place in, on, under or around waahi tapu should be consulted on with relevant whanau, hapu and Iwi. The hierarchy of waahi tapu in a particular area should also be determined by whanau and hapu.

Potential wellbeing impacts of Te Ara Tipuna on cultural identity

In the context of Te Ara Tipuna, a key opportunity for impact on the cultural identity domain could be in the ability for East Coast communities to celebrate and share their cultural identity with others. Tourism growth resulting from the trailway would create opportunities for community members to showcase and celebrate their culture as a livelihood.

For a more detailed assessment of the Cost-Benefit Analysis of Te Ara Tipuna please refer to the "*The Wellbeing Cost-Benefit Analysis of Te Ara Tipuna*" prepared by TDB Advisory, June 2021.

Te Tiriti o Waitangi

PSGE's /MIO/MIA

PSGE – Post Settlement Governance Entity

- The entity that receives and manages the historical Treaty of Waitangi settlement assets on behalf of the iwi claimant group.

MIO – Mandated Iwi Organisation

- The entity with a mandate by their iwi and recognised by the Crown for Treaty of Waitangi Settlement negotiations; and/or
- The entity that is recognised by Te Ohu Kaimoana Trustee Ltd as a mandated iwi organisation under the Maori Fisheries Act 2004

MIA – Mandated Iwi Authority

- The entity that represents an iwi for the purposes of the Resource Management Act 1991 (RMA) and which is recognised by that iwi as having authority.

These entities traditionally hold authority to negotiate the Iwi historical Treaty of Waitangi negotiations and at settlement hold and manage the assets of behalf of the Iwi. The particular assets are determined by the particular legislation. Te Runanganui o Ngati Porou hold and manage all assets under the Ngati Porou Deed of Settlement and the Maori Fisheries Act 2004.

Te Whanau a Apanui has yet to settle their historical Treaty of Waitangi claims, but they are in negotiations with the Crown, however Te Runanga o Te Whanau hold and manage on behalf of its constituents the assets under the Maori Fisheries Act.

Ngai Tai Iwi Authority recognised under the Maori Fisheries Act 2004; it is also the mandated iwi Authority tasked with negotiating their historical Treaty of Waitangi claims with the Crown.
Te Whakatohea Maori Trust Board have recently settled their historical Treaty of Waitangi claims, it also is the MIA and MIO for under the Resource Management Act and Maori Fisheries Act 2004.

Nga Rohe Moana o Nga Hapu o Ngati Porou

The Nga Rohe Moana o Nga Hapu o Ngati Porou Bill is a piece of legislation that set into law in 2016.
It allows for 6 'Management Arrangements' that have 6 legal entities, the role of these entities is to exercise the rights and responsibilities of nga hapu o Ngati Porou under the amended deed, the instruments and the legislations, these 'Management arrangements' are with:

1. Potikirua ki Whangaokeno
2. Whangaokeno ki te Onepoto
3. Onepoto ki Rahuimanuka
4. Rahuimanuka ki Mataahu
5. Mataahu ki Kokoronui
6. Kokoronui ki te Toka-a-Taiau

For the purposes of this Report, the legislation;

- Acknowledges that Nga Hapu o Ngati Porou will have the ongoing Mana to continue to regulate and undertake activities on, over or within Nga Rohe moana o Ngati Porou.
- It recognises the unbroken, inalienable, and enduring mana of Nga Hapu o Ngati Porou in relation to their Rohe moana.
- Provides recognition of the right of Nga Hapu o Ngati Porou to exercise influence over persons carrying out activities within, or impacting upon, Nga Rohe moana o nga Hapu o Ngati Porou
- Acknowledges the partnership principle underlying Te Tiriti o Waitangi and the obligation of both Ngati Porou and the Crown to act in good faith, fairly, reasonably and honourably towards each other.
-

Recommendation:

Therefore, where the proposed tracks intersect or engage with any area under the direct purview of these entities, it should be identified and plans for early and meaningful engagement with the relevant entities must be undertaken. Firstly through engagement with Nga Rohe Moana o nga Hapu o Ngati Porou Coordinator to facilitate engagement with the Hapu entities.

Cultural Impacts:

While there are a range of cultural impacts that will be identified in more detail in successive cultural impact assessments by the near completion of this project. These successive CIA will form the initial framing of the narrative for particular areas by whanau, hapu and land owners, for the purposes of this report they have been characterised as high level impacts with the appropriate preventative, elimination and or mitigation process advised.

Mana Whenua – Whanau, landowners, Hapu and Iwi hold mana whenua, which means they can exercise rangatiratanga over decision made in regard to areas under their direct purview.

Access – This speaks to the rights of the landowner, Hapu, Marae and in some cases Iwi to restrict access to certain areas for specific purposes, some of these purposes may include certain activities that are being carried out in a particular place at a particular time. Some might include restrictions due to health and safety concerns.

Recommendation – Scope out identified activities and prepare a schedule to help inform users of the track of any restrictions and kawa and tikanga that needs to be adhered to.

Cultural Knowledge – Those people who visit and use the track might have a lack of cultural knowledge and information to respectfully engage with different sites, waahi tapu on the track.

Recommendation – Develop a Aru-whenua or 'passport system', accompanied by an Oati 'Oath' to adhere to identified Tikanga and Kawa in specific areas.

Construction – any construction on identified sites of significance has the possibility of further damaging the existing site.

Recommendation – Development of a Risk appetite statement alongside whanau, landowners, Hapu and Iwi and where applicable relevant agencies to determine an acceptable risk tolerance for construction on, in and around specific sites.

Hononga/relationship – The relationship people have with the land is intrinsic, construction, traffic and other such activities could impinge on this relationship.

Recommendation – Any finalised construction and design work should be done in consultation with landowners, whanau, hapu, and Iwi where applicable.

Korero tuku iho/ whanau, hapu, iwi narratives- Landowners, whanau, hapu, and iwi will have control of the narratives, descriptions and information that is shared with walkers. cyclists and trekkers over their part of the trail.

Cultural Opportunities:

While the high-level impacts and proposed mitigations identified and provided for in the recommendations, this section will outline the significant opportunities available to whanau, landowners, hapu, and iwi by Te Ara Tipuna.

Mana Whenua – this will provide the aforementioned groups with the ability to practically apply rangatiratanga and mana over the areas under their direct control. This project will also provide the opportunity for these groups to practically exhibit the roles and responsibilities that come with the exercising of rangatiratanga.

Access – this will support landowners, whanau, hapu, and iwi to exercise rangatiratanga by determining when and how access to areas will be given and supplementary to this, what parts of the area can be accessed.

Cultural knowledge – this holds the greatest opportunity, not only for the users of the track but more importantly for the landowners, whanau, hapu, and Iwi. This will allow for greater access to sites of significance, to the matauranga held in, on and around these sites, to the ecology and eco-systems that make up these sites. The cultural knowledge that will be accessed through this project will help to rejuvenate the people and place.

Part of the development of the Aru-whenua and framing of the Oati will help in the articulation of Kawa and Tikanga for each area thereby contributing to the creation of resources for all those involved.

The Aru-whenua and Oati will also provide landowners, whanau, and hapu with the opportunity to design and develop the collateral (narratives, story boards) for signage and apps, for their stretch of Te Ara Tipuna, allowing them the opportunity to tell their stories in their way. This will also contribute to the corpus of whanau, hapu, and Iwi cultural resources in the future.

Construction – the planned construction for this project will serve to enhance the natural features of the area by causing negligible to minimal disturbance where possible. In some instances, it will provide an alternative accessway in civil emergency situations. It will provide an aesthetically pleasing infrastructure that will attract and encourage locals to walk these tracks which will contribute towards healthier outcomes for people.

Hononga/Relationship – This provides the opportunity to deepen the relationship whanau, hapu and iwi have with their land and therefore their natural resources. It provides one of the best opportunities for the descendants of these lands to connect, reconnect with the land, familiarise or re-familiarise themselves with their 'pepeha', so not only will they know their pepeha, but their pepeha will also know them.

Ka hoki nei au ki te Tairawhiti
Horouta wananga
Horouta whanaunga
Toitu atu ra ki te Tairawhiti
Ki te Ao marama e....

Appendix 11:

Geotechnical Assessment

INITIA

GEOTECHNICAL SPECIALISTS

HRM & ASSOCIATES

TE ARA TIPUNA TRAIL – GISBORNE TO OPOTIKI

GEOTECHNICAL ASSESSMENT REPORT

INITIA REF P-001538 REV 2

JUNE 2023

Contents

1. Introduction

1.1 General

This report has been prepared to provide geotechnical advice and recommendations for the proposed Te Ara Tipuna trail from Gisborne to Opotiki. A desktop study and a geotechnical site visit has been undertaken for the proposed trail to provide advice on potential geohazards along the route that may affect the planning and construction of the project.

The conclusions and advice presented in this report are based off a high-level desktop study of aerial imagery using Google Earth completed in June 2023 and a two-day site drive through in March 2023. The report is intended to support the Resource Consent Application for the project. Further geotechnical mapping and investigations will be required during the detailed design stage of the project to assess the constructability of the proposed route.

1.2 Proposed Development

1.2.1 General

Te Ara Tipuna is proposed to be a network of ara/accessways around the East Cape, for local communities and visitors to hike, bike, horse trek; and to provide connection and catalysts for businesses and employment offering services, provisions, and experiences.

Te Ara Tipuna will traverse the rohe of Ngāti Porou and of Te Whānau-ā-Apanui, allowing users to engage with some of the most beautiful, rugged, isolated land and waterways of Aotearoa, as well as experiencing cultural icons of marae and mountains, and the unique character of its local people and communities.

The track is proposed as a shared pathway involving various types of construction, depending on the local conditions, including boardwalks, simple wooden tracks, gravel tracks and way findings through paddocks. There will also be establishment of toilets and shelters throughout the network to provide amenities for users and potentially the construction of carparks at key points for day or multi-day trips.

The intention of the track is to provide a level of resilience to the East Coast by providing four-wheel drive/quad-bike type access to remote sections where State Highway 35 is prone to closure after significant weather events such as the recent Cyclone Gabriel event. Te Ara Tipuna has the potential to provide Civil Defence options for access in these events.

At the early stage of the project Civil Project Solutions (CPS) has developed a high level route for the track, which is shown in the figure below:

Figure 1-1: Provisional route for the Te Ara Tipuna trail.

In addition, the overall route has been split into walking days by the project team. They estimate that the track should be split into 26 days.

1.2.2 Ruatoria Route

A section of the Te Ara Tipuna Trail in Ruatoria has been chosen to showcase the potential track types of the overall trail. The Ruatoria Route is a 1 km section of four tiers of tracks (raised boardwalks, boardwalks, gravel and standard). The development will include approximately 100 m of raised boardwalks, 300 m of boardwalks, 200 m of gravel track and 440 m of standard track (see below).

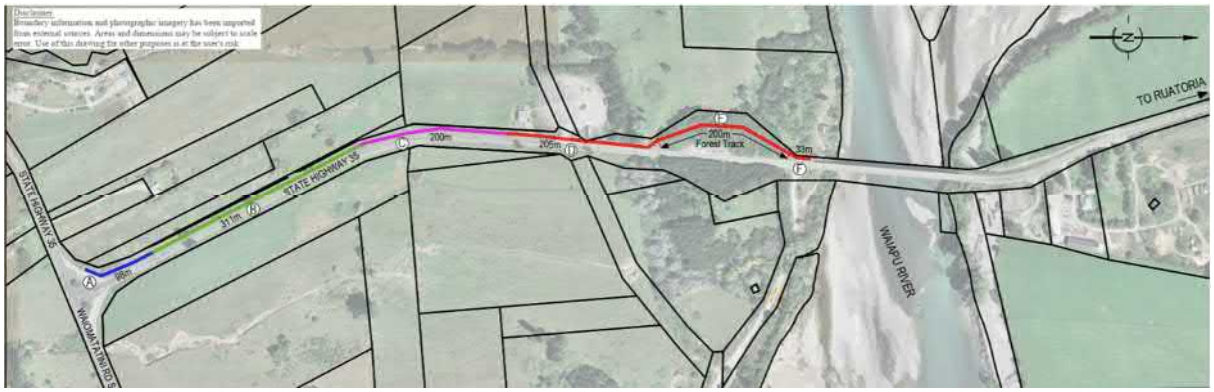


Figure 1-2: Ruatoria Route Layout.

1.2.3 Proposed Track Types

The Te Ara Tipuna Trail is proposed to consist of four different tiers of tracks that will be utilised in different sections of the trail. The four tiers of tracks are raised boardwalks, boardwalks, gravel and standard and a description of these are provided below. It is envisaged that the gravel and standard tier tracks will be utilised for a majority of the tracks which will involve minimal construction and maintenance compared to the raised boardwalks and boardwalks tier tracks. The raised boardwalk and boardwalk tier tracks are likely to be used around townships where usage will be greater.

Raised Boardwalk Tier Track

The track is a high quality raised wooden walkway, similar to that constructed between Waikanae and Midway Beach in Gisborne. The wooden walkway is likely to be supported on timber poles embedded approximately 300 – 500 mm below ground level. Figure 1-3 and Figure 1-4 below provides examples and a cross section of the proposed raised boardwalk track.

Figure 1-3: Example image of a proposed raised boardwalk tier track.

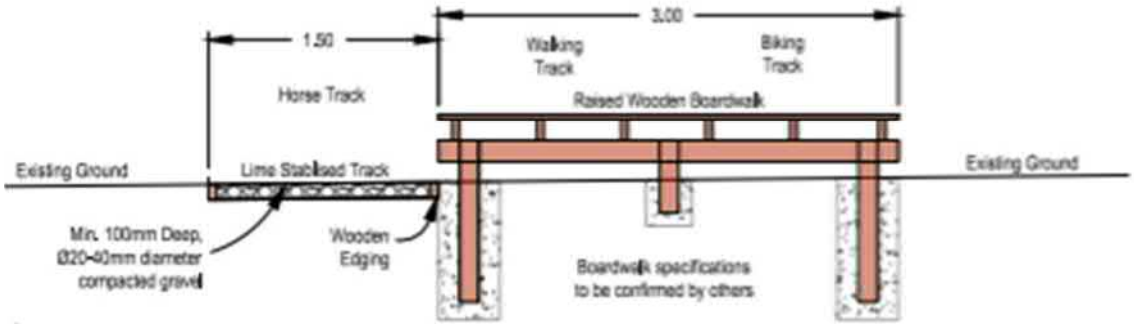


Figure 1-4: Typical cross section of a raised boardwalk.

Boardwalk Tier Track

This track is a wooden walkway that bears directly on the ground (i.e. is not raised). This type of track will not be as significant and visually appealing compared to a raised boardwalk track and may have some grassed sections. Figure 1-5 and Figure 1-6 below provide examples and a cross section of a proposed boardwalk tier track.

Figure 1-5: Example image of a proposed boardwalk tier track.

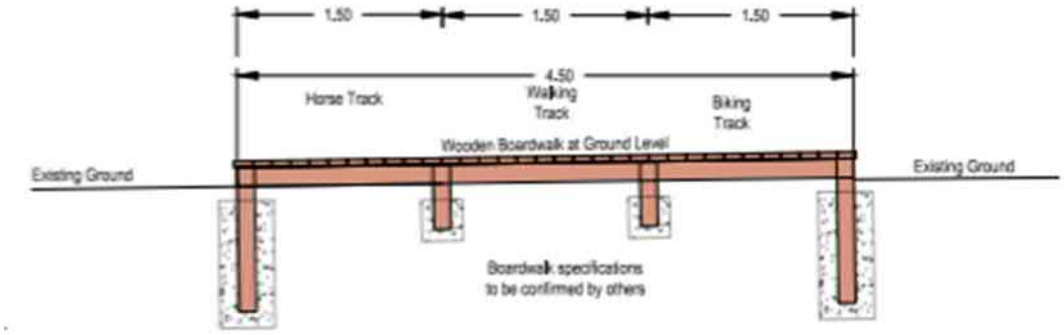


Figure 1-6: Typical cross section of a boardwalk tier track.

Gravel Tier Track

The gravel tier track will have an aggregate surface (100 mm of compacted aggregate) which is crowned in the middle walkway. The gravel track will provide a higher level of service than a farmland or beach track. Figure 1-7 and Figure 1-8 below provides examples and cross section of a proposed gravel tier track.

Figure 1-7: Example image of a proposed gravel tier track.

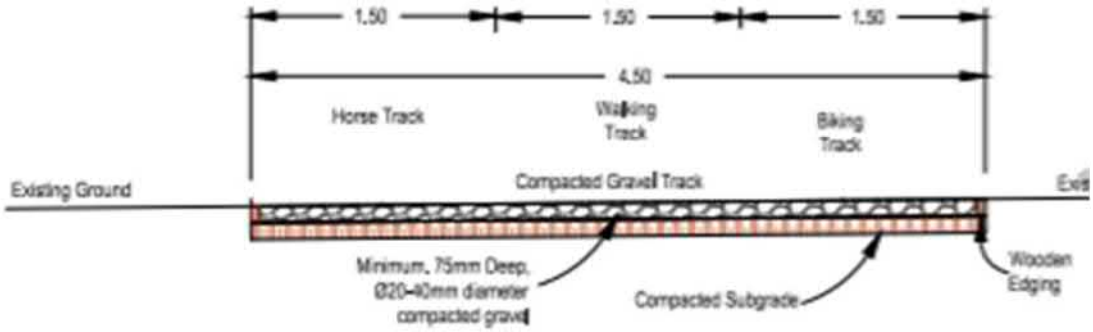


Figure 1-8: Typical cross section of proposed gravel tier track.

Standard Tier Track

A Standard Tier track is essentially formed within the natural landscape, requiring minimal change to current grades and supported with wayfinder posts. This track will typically be used through bush and farmland and may require the removal of vegetation and limited track sculpting. Figure 1-9 below provides a typical cross section of a Standard Tier track.

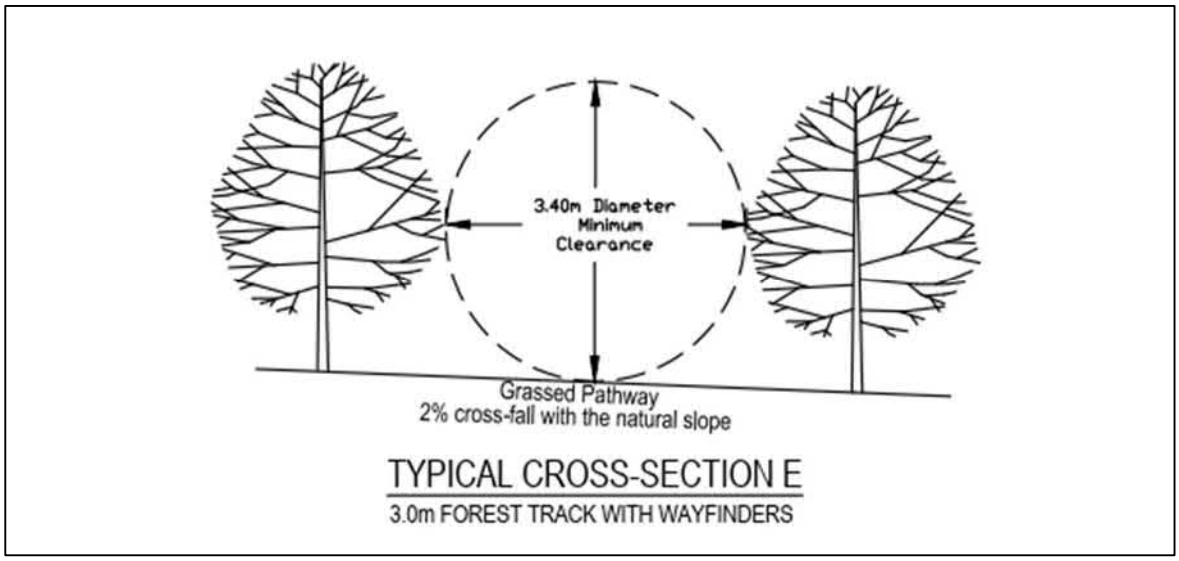


Figure 1-9: Typical cross section of a Standard Tier track.

1.2.4 Proposed Structures Along Te Ara Tipuna Trail

A number of structures will be constructed along the Te Ara Tipuna Trail to provide access across streams/rivers and to provide amenities to sections of the track that are not located in towns. The main structures proposed along the track are detailed below:

- New bridges to cross streams along the route, where the track was not able to use an existing bridge, or the stream is considered too deep to cross at the river mouth. These structures will require geotechnical input at the detailed design stage of the project.
- Clip on bridge sections for existing bridges that do not currently have a foot path or a not wide enough to accommodate cyclists, walkers and horses. Geotechnical input will not be required for these structures.
- Huts and shelters are proposed to be constructed along sections of the track. At this stage of the project no specific design has been provided on the size and type of such structures, however, it is envisaged that these will involve lightweight timber structures that will be

founded on timber poles. If the structures require a resource and/or building consent geotechnical input will be required at the detailed design stage of the project.

- Toilets are proposed to be constructed along the track and the size and type of these structures will likely vary from basic toilet structures in isolated areas to larger toilet blocks in towns. Requirement for geotechnical input will need to be assessed depending of the type and size of the structure at the detailed design stage.

2. Geology of the Region

2.1 Published Geology

The geology of the East Cape (Raukumara) region[1] is very complex with rapid changes in soil and rock type, many faults and in parts of the region major thrust sheets. The geology of the region is split into five major units based on their age and structural history:

- Late Jurassic to Early Cretaceous basement rocks of the Torlesse terrane.
- In-place Cretaceous to Oligocene sedimentary rocks.
- Early Cretaceous to Oligocene displaced sedimentary and igneous rocks of the East Coast Allochthon
- Miocene and Pliocene sedimentary rocks
- Quaternary sediments

A description of each of the major units is detailed below:

2.1.1 Late Jurassic to Early Cretaceous Basement (Unit 1)

The Late Jurassic to Early Cretaceous Basement rock typically consists of indurated sandstone and mudstone commonly referred to in New Zealand as 'greywacke'. The greywacke is part of the Torlesse Supergroup with forms the North Island axial ranges and much of the Southern Alps. The basement greywacke in the region outcrops as part of the Raukumara Range and is located in the northwestern section of the region. The greywacke forms the steep, heavily vegetated hill slopes that is seen along the western coastline of the region.

Greywacke rock is typically a strong rock when unweathered and is usually heavily fractured. Unweathered greywacke will stand at steep face angles and is relatively slow to weather/erode.. Once the rock becomes weathered and jointed, the rock decreases in strength and becomes susceptible to landslips as seen in the heavily fractured greywacke in the Waioeka Gorge. The defects, weathering and slope angle of the greywacke rock will determine the slope instability risk throughout the region, although it is considered significantly more stable than the other units in the region.

2.1.2 In-place Cretaceous to Oligocene Rocks (Unit 2)

The in-place Cretaceous to Oligocene rocks typically consists of many different subunits throughout the region. The main subunits are the Matawai group, which is comprised of moderately indurated sedimentary rocks, the Ruatoria group consisting of alternating fine-grained sandstone and mudstone, the Tinui group which is mudstone dominated and the Mangatu group which is comprised of glauconitic and calcareous mudstone and sandstone. The overall unit is typically located throughout the centre and northern parts of the regions.

Due to the variety of the rocks in this unit, the engineering properties are variable and thus different units are more susceptible to landslips. Units with high clay contents are found to be susceptible to failure by earth flow mechanisms. The harder rocks in the unit, where fractured are susceptible to gully erosion and slumping.

2.1.3 East Coast Allochthons (Unit 3)

The East Coast Allochthon rocks have been thrusted over the two older units that are detailed above. The main units in the East Coast Allochthon are the early Cretaceous to Eocene igneous rocks, early and late Cretaceous sedimentary rocks, late Cretaceous to Paleocene sedimentary rocks and Eocene and Oligocene sedimentary rocks. The rocks are typically found in the north and north-eastern parts of the region.

[1] Geological & Nuclear Sciences Limited. Geology of the Raukumara Area. Dated 2000.

Due to the rocks being thrusted into place, the sedimentary rocks are typically heavily sheared and fractured which can result in landslips occurring on shear planes at low angles. Intensely sheared and mixed lithologies are mapped as Melange, and reflect ancient soft sediment deformation and folding. . This unit is considered to be a stability risk and many large landslips have occurred in the Allochthon rocks. The igneous rocks in the unit are strong to very strong rocks and are stable at steep angles. When unweathered, these rocks are typically not prone to slope failures.

2.1.4 Miocene and Pliocene Rocks (Unit 4)

The Miocene and Pliocene rocks have been deposited in local basins controlled by uplift, faulting and subsidence. Two main groups that form the Miocene and Pliocene rocks are the older Tolaga Group and the younger Mangaheia Group. The Tolaga Group typically consists of massive to thinly bedded mudstones which are slightly calcareous. The Mangaheia group consists of up to 2000 m of shelly sandstone, sandstone and mudstone. The overall unit is typically located along the eastern coastline and some sections of the northern coast.

The Miocene and Pliocene vary in strength from extremely weak to moderately strong. Unweathered rock typically forms steep natural faces as seen in areas such as Tolaga Bay. The mudstone dominated rock are typically more susceptible to slope failures than the sandstone dominated rocks. Bedding plane failures and slumping are typical failures that occur in this unit. When the rocks become weathered, shallow failures in residual soil layers are common when combined with high rainfall events.

2.1.5 Quaternary Sediments (Unit 5)

Quaternary sediments have been deposited in the last 1.8 million years and occur in the region as alluvial plains, swamps, onshore coastal plains and landslide deposits. These sediments typically consist of soft peats and mud and unconsolidated sands and gravels. The materials are typically loose and soft in nature and are often susceptible to liquefaction and lateral spread in a seismic event. Quaternary sediments occur throughout the region, typically near the coast and river plains.

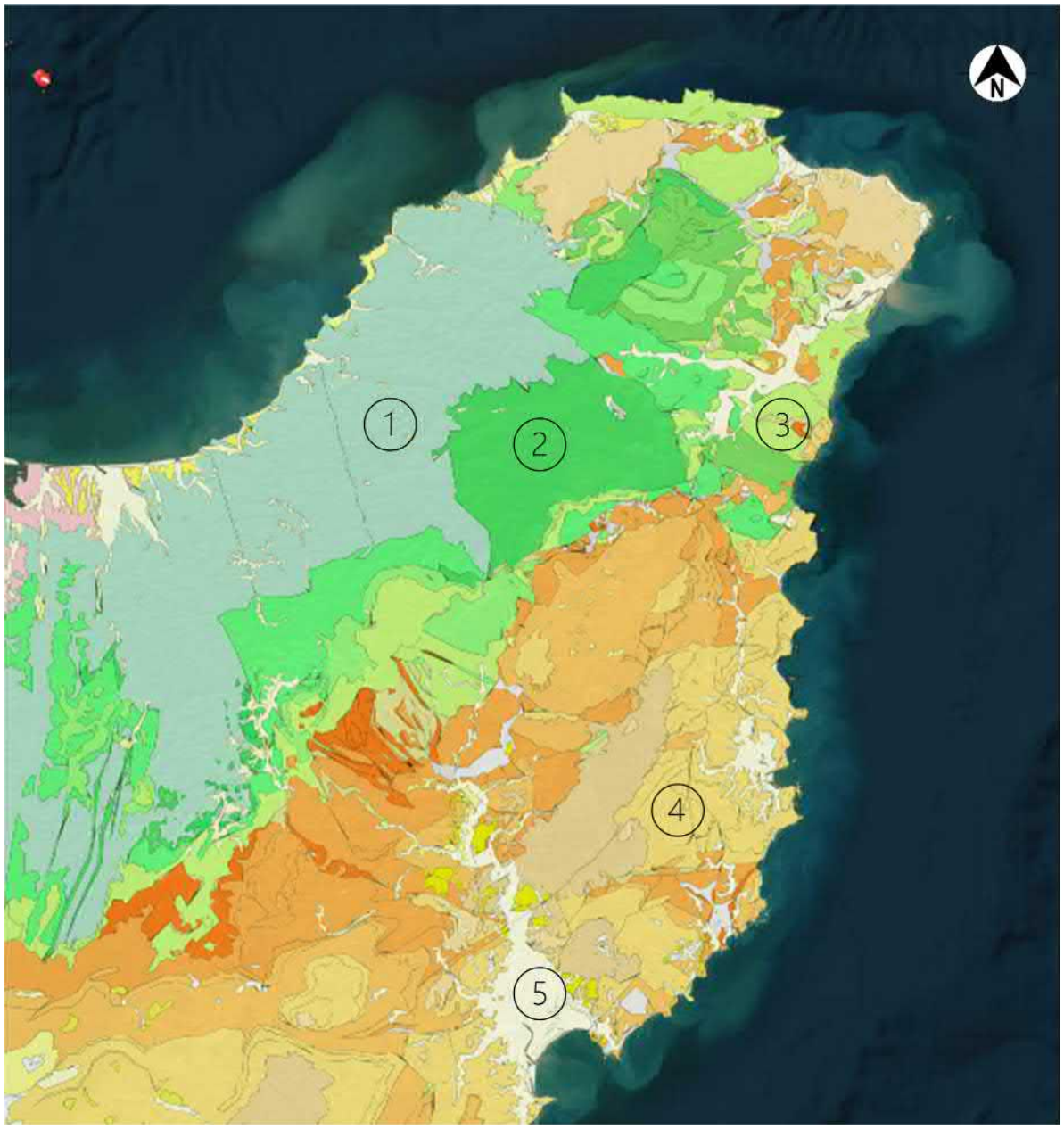


Figure 2-1: Geology map of the East Coast Region. Sourced From GNS Science.

Major Geology Units example locations on geology map:

1. Late Jurassic to Early Cretaceous Basement – greyish green
2. In-place Cretaceous to Oligocene Rocks – green
3. East Coast Allochthons – light green and light blue
4. Miocene to Pliocene Rocks – orange
5. Quaternary Sediments - cream

3. Geotechnical Hazards Overview

3.1 General

The East Cape region is prone to many geotechnical hazards due to the regions tectonic setting and exposure to coastal weather systems. These hazards are particularly relevant considering the predicted increase in frequency of significant weather events due to climate change and sea-level rise. The complex geological structures of the East Cape, together with typically weak rock types and steep topography results in landforms that are susceptible to landslips and coastal erosion. Areas of Quaternary sediment deposition in low lying valleys and coastal areas are prone to a potential liquefaction and lateral spread hazard when large seismic events occur.

Description of the typical hazards encountered in the East Cape region are detailed below.

3.2 Landslips

Landslips are the movement downslope of soil, rock or debris and are caused when the shear stresses within a slope exceed the shear strength of the materials that form a slope. The two main causes of landslips in the East Coast region are earthquake induced landslips, and landforms with weathered soil horizons and/or clay content susceptible to rainfall induced instability. Landslips occur on steep hillsides that are prevalent in the East Coast Region. The type and size of a landslip is dependent on the slope angle, underlying geology and intensity of the triggering event e.g. the large rainfall events in January/February 2023 caused widespread landslips over the region. These rainfall induced events are typically shallow soil horizon failures, however, they can involve large volumes of material and/or create damaging debris flows.

Deep seated landslip features are typically activated less frequently and may express slowly over time with ongoing creep movement and gradual progression of ground cracking. These features are however, usually larger in scale and much more challenging to repair/remediate. Risk of deep-seated landslips are typically identified by mapping ancient surface features and landforms, or geotechnical investigation of underlying rock structures, i.e. faults, bedding and defect orientations.

Landslips are a significant hazard to transport routes and can occur as an overlslip or an underslip. An overlslip occurs when the slope above a transport route fails, resulting in material covering the route and blocking traffic movement. Material will need to be removed by heavy machinery and the slope failure stabilised before the transport route can be opened. An underlslip occurs when the slope below a transport route fails which can result in a loss of material underneath the route and will require the road to be rebuilt which may involve retaining walls or significant engineering inputs to repair.

Due to the topography along the proposed Te Ara Tipuna Trail, landslips are considered to be the most significant and common hazard that will be encountered. Throughout the design, geotechnical input will be required to mitigate the risk of landslips that may occur above or below the proposed trail.

3.3 Liquefaction and Lateral Spread

Liquefaction occurs in saturated, loose granular soils under seismic loading, and it causes the soil to lose shear resistance. For liquefaction to occur, the material must have the potential to densify under cyclic loading, be saturated (e.g beneath the groundwater table) and be subjected to a seismic event. Liquefaction potential in the region is typically considered high due to being in a high-risk earthquake zone. Liquefaction can cause significant risk to structures such as buildings and bridges where the ground below loses strength causing damage to the structures.

Lateral spreading is generally defined as horizontal displacement of blocks of material towards an open slope face (e.g. stream banks) as a result of the underlying soils losing strength during a liquefaction event. The presence of a continuous liquefiable layer of sufficient thickness is required for significant spreading to occur. Lateral spread can stretch building foundations if not considered in design.

3.4 Active Faults

Active faults present a significant geohazard in the East Coast Region due to the proximity of the Hikurangi Margin located off the east coast of New Zealand. The two main hazards associated with active faults are strong ground shaking and surface deformation. Strong ground shaking can affect large areas of land as seen in the Christchurch and Kaikoura Earthquakes where is ground deformation due to fault rupture will only occur along the fault.

Secondary geohazards can also be caused by strong ground shaking. These include landslips and soil liquefaction.

3.5 Coastal Regression

Coastal regression is the loss of land of a beach dune or a coastal cliff due to wave action that is exerted onto the dune or cliff. Coastal regression of a beach dune is typically caused by storm events where wave energy is high causing sand to be eroded. Sea level rise will also cause further erosion in the dune environment.

Regression of coastal cliffs can be caused by storm events and through a prolonged period of wave action from a particular direction. The coastal cliffs typical regress through landslips/cliff collapse which is typically caused through wave action undercutting the base of the cliff, which results in the cliff collapsing. High rainfall events can also cause landslips on the higher elevation margins at the slope crest margin of coastal cliffs, in the same way that landslips occur inland.

4. Geotechnical Site Visit and Track Review

4.1 Geotechnical Site Visit

A senior geotechnical engineer and an engineering geologist from Initia undertook a preliminary site visit of the Te Ara Tipuna Trail alongside the project manager from CPS. The purpose of the site visit was to visit areas of the trail that have been identified by aerial photograph assessment as having potential geotechnical hazards that may affect the proposed track alignment. The site visit also enabled Initia to identify some hazards that were unable to be observed from aerial imagery and gain an understanding of how each part of the region has site specific risks and vulnerabilities that will need to be managed.

Whilst undertaking visual inspection of sections of the route, a drone was flown to gather imagery and undertake preliminary assessment of some problematic areas. The aim of gathering drone imagery was to assess potential route options such as the steep cliffs at the northern end of Tolaga Bay. Due to the size of the proposed track and isolated nature of the region, only a small section of the proposed track was able to be visually assessed whilst traversing the East Cape in two days. Further detailed site visits will be required throughout the detailed design stage to manage the risks throughout the trail.

4.2 Track Review

After the geotechnical site visit, an engineering geologist from Initia undertook a preliminary track review based on what was identified during the site visit and an initial desktop study of the track using Google Earth. The track review provided recommendations on areas of the proposed track that should be adjusted to avoid significant geotechnical hazards. Track changes were typically made to avoid surface features identified as likely landslips, and to adjust trails from mid slope to ridgelines to avoid creating instability risks due to excavations on slopes. It was also advised that track alignments directly above coastal seacliffs were to be moved inland, typically in the order of 50 m in order to create resilience for the track and eliminate the need for coastal and geotechnical engineering analysis.

The track reviews were provided to CPS and changes were made to the proposed route base on our recommendations.

It should be appreciated that the imagery on Google Earth is not current and there are likely to be further stability issues along the proposed track that could not be identified in the Google Earth review given the recent weather events.

5. Geotechnical Hazard Assessment

5.1 General

A preliminary geotechnical hazard assessment was undertaken to present potential hazards along each day of the Te Ara Tipuna Trail and the Hikurangi Loop Trail. A table has been created highlighting the below sections for each day:

- Mapped Geological Unit
- Topography of the Track Alignment
- Proposed Track Types
- Potential Geotechnical Hazards
- Key Areas of Geotechnical Hazards
- Geotechnical Input Required at the Design Stage
- Preliminary Risk Rating

The purpose of the table is to enable the client to understand what sections of the trail will require further geotechnical work at the design stage and area's that may have a higher perceived risk.

5.2 Geotechnical Hazard Assessment Table

A preliminary risk rating for each day has been provided based on a review of aerial imagery and the geotechnical site visit. The preliminary risk rating will be refined throughout the design stage of the project and will focus on site specific risks.

A description of the risk rating is provided below:

Low Risk Rating

Areas of the track that are considered a low risk are typically situated on flat alluvial plains or areas of gently sloping hills. These areas have not had any significant geotechnical risks identified and we do not expect to undertake geotechnical analysis at the detailed design stage. Geotechnical risks along these sections of the track will typically be able to be addressed through the construction stage and solutions are unlikely to affect the trail alignment or be costly. Although these areas will not require detailed geotechnical assessments, it would be prudent for site walkovers and/or an aerial imagery review be undertaken to confirm preliminary risk findings.

Moderate Risk Rating

Areas of the track that are considered a moderate risk are typically situated on moderately sloping hillslopes or near coastal seacliffs. These areas have potentially significant geotechnical risks, however, these risks are able to managed where alternate route selections are available. Geotechnical mapping and assessments will be required at the detailed design stage to ensure that the track alignment is not hindered by sections of potential instability. It is envisaged that areas of moderate risk will not require engineered solutions and the potential risk to the track can be managed through the detailed design process.

High Risk Rating

Areas of the track that are considered a high risk are typically situated on moderate to steeply sloping hillslopes that show evidence of significant historic instability. These areas have significant geotechnical risks and will require detailed geotechnical mapping and assessment to advise on track alignment where the geotechnical risk can be managed. High risk areas may require engineered solutions on parts of the track to increase stability of slopes where an alternative route is not practical.

Table 5-1: Geotechnical Hazard Assessment Table

Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
Day 1	– Unit 4 – Unit 5	– Moderately to steeply sloping hill country – Coastal Cliffs – Beach – Flat Farmland	– Existing Farm Tracks – Beach – Road and Road Shoulder – Existing Walking Track – Standard Tier Track	– Coastal erosion and seacliff stability – Slope stability of the 2 No. tracks heading to the ridgeline above the road	– Day 1 begins at Makorori Heads and continues along the beach before heading up moderately steep slopes onto farmland. The two coastal headlands along Day 1 are considered to be Key Areas and are marked on Figure 1538-G02 which have been identified as areas of potential coastal erosion. Further geotechnical assessment will be required pending the track alignment position in relation to the coastal seacliffs.	– Geotechnical slope stability and coastal regression assessment will be required for the two coastal headlands. – The two proposed paths through farmland on moderately steep slopes should be assessed for potential instability.	**Moderate**
Day 2	– Unit 2 (minor) – Unit 4 – Unit 5	– Moderately sloping hill country – Coastal Cliffs – Alluvial Plains – Flat Farmland	– Gold Tier Track – Road and Road Corridor – New Standard Tier Track	– Slope stability of ridgelines that the track follows. – Coastal erosion and seacliff stability – Liquefaction and lateral spread risk for proposed bridge structures	– Day 2 heads along the coastal sea cliffs on relatively flat farmland before following the ridgeline around a gully feature. A section of the track marked Day 2 Key area on Figure 1538-G03 has been identified as an area with potential instability. Further geotechnical assessment will be required	– Geotechnical slope stability assessment and site mapping will be required for the area of potential instability identified as a key risk along Day 2. A coastal regression assessment may be required pending the location of the track in relation to the sea cliffs	**Moderate**
Day 3	– Unit 4 – Unit 5	– Beach – Wetland – Alluvial Plain – Moderately to steeply sloping hill country	– Road and Road Shoulder – Beach – Standard Tier Track	– Slope stability of ridgelines that the track follows for a majority of the day. – Liquefaction and lateral spread risk for proposed bridge structures	– No specific area of the track has been identified as a significant geotechnical risk, however, the entire route that follows the ridgeline may have potential stability risks	– A geotechnical site walkover or review of drone imagery should be undertaken to confirm slope stability risk	**Low to Moderate**
Day 4	– Unit 4 – Unit 5	– Beach – Moderately sloping hill country – Alluvial Plains	– Beach – Standard Tier Track – Existing walking track – Road and Road Corridor	– Potential rock fall risk along beach section – Slope stability risk where the track crosses the moderately sloping hillslopes towards Tolaga Bay.	– Day 4 heads along the beach before traversing across hillslopes with evidence of instability. A section of the track marked Day 4 Key area on Figure 1538-G05 has been identified as an area with potential instability. Further geotechnical assessment will be required.	– Geotechnical slope stability assessment and site mapping required for the section of track that traverses the moderately sloping hillslope	**Moderate**
Day 5	– Unit 4 – Unit 5	– Beach – Moderately to steeply sloping hill country – Alluvial Plains	– Road and Road Corridor – Silver Tier Track – Existing walking track	– Slope stability of proposed track down from Earnest Reeve Walkway	– Day 5 starts in Tolaga Bay heading up Earnest Reeve Walkway and down a steep slope before following alluvial plains. A section of the track marked Day 5 Key area on	– Geotechnical slope stability assessment and site mapping will be required for the steep slopes	**High**

[1] Unit 1: Jurassic to Cretaceous Basement Greywacke rock, Unit 2: Cretaceous to Oligocene sandstone/mudstone, Unit 3: East Coast Allochthon sheared sedimentary rock and igneous rock, Unit 4: Miocene to Pliocene mudstone and sandstone, Unit 5: Quaternary Sediments.

Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
			– Standard Tier Track – Beach		Figure 1538-G06 has been identified as an area with a significant stability risk. Further geotechnical assessment will be required to determine a suitable route down from Earnest Reeve Walkway	identified as a key risk along Day 5.	
Day 6	– Unit 4 – Unit 5	– Beach – Moderately to steeply sloping hill country – Alluvial Plains	– Beach – Standard Tier Track – Road and Road Corridor – Existing Farm Track	– Slope stability risk through the moderately to steeply sloping hill country	– No specific section of the track has been identified as being a significant geotechnical risk and there is significant areas where the track alignment can be adjusted if instability is encountered	– A geotechnical site walkover or review of drone imagery should be undertaken to confirm slope stability risk	**Low to Moderate**
Day 7	– Unit 4 – Unit 5	– Beach – Moderately to steeply sloping hill country	– Existing Road and Road Corridor – Standard Tier Track – Beach – Existing Farm Track	- Slope stability risk along moderately to steeply sloping vegetated hills - Coastal erosion and sea cliff stability -	- Day 7 starts along Anaura bay before heading along coastal cliffs and then traverses through vegetated hillslopes. 2 No. sections of the track have been identified as key areas and are marked on Figure 1538-G08. Key area 1 is the section of track the follows the coastal seacliff and key are 2 is the section of track that follows the heavily vegetated hillslope. This area will require geotechnical assessment to determine a suitable route.	- Geotechnical slope stability assessment and site mapping will be required for the coastal cliff section and the heavily vegetated hillslopes. A coastal regression assessment may be required pending the location of the track in relation to the sea cliffs	**Moderate to High**
Day 8	– Unit 3 – Unit 4 – Unit 5	– Moderately to steeply sloping hill country – Alluvial Plains	– Existing Road and Road Corridor – Standard Tier Track	– Slope stability in heavily vegetated hills after Tokomaru Bay	– Day 8 starts along the coastline of Tokomaru Bay and proceeds to traverse along moderately to steeply sloping, heavily vegetated hill country. The entire section of the vegetated hill country is considered to be a potential instability risk and is marked on Figure 1538-G09 as Day 8 Key area. This area will require further geotechnical assessment to determine as suitable route.	– Geotechnical slope stability assessment and site mapping will be required to determine the stability risk through the vegetated hillslopes. Due to the remote nature of this section of the track, aerial imagery will likely be the most efficient way to assess stability.	**Moderate to High**
Day 9	– Unit 2 – Unit 3	– Moderately to steeply sloping hill country	– Existing Road and Road Corridor – Standard Tier Track	– Liquefaction and lateral spread risk for proposed bridge structures – Slope instability of track through moderately sloping vegetated hill country	– Day 9 traverses moderately sloping hill country that has evidence of large historic landslips. A section of the track marked Day 9 Key area marked on Figure 1538-G10 has been identified as an area with potential instability.	– Geotechnical slope stability assessment and site mapping will be required to determine the stability risk associated with the historic landslips	**Moderate**

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Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
Day 10	– Unit 2 – Unit 3 – Unit 4 (minor)	– Moderately to steeply sloping hill country – Gently sloping farmland – Alluvial Plains	– Standard Tier Track – Existing Farm Track – Existing Road and Road Corridor	– Liquefaction and lateral spread risk for proposed bridge structures – Slope instability along the river valley	– Day 10 follows a river valley before heading across farmland above a moderately sloping coastal cliff. No specific area of the track has been identified as being a significant risk	– A geotechnical site walkover or review of drone imagery should be undertaken to confirm slope stability risk	**Low to Moderate**
Day 11	– Unit 2 – Unit 3 – Unit 4 – Unit 5	– Gently to moderately sloping hill country – Alluvial Plains	– Standard Tier Track – Existing Farm track – Existing Road and Road Corridor	– Slope instability of track evident by historic slips along the proposed track alignment	– Day 11 traverses moderately steep hill country that has evidence of instability. A section of the track marked Day 11 Key area on Figure 1538-G16 has been identified as an area with potential stability risks and will require further geotechnical assessment	– Geotechnical slope stability assessment and site mapping will be required to determine an appropriate route through the hills that lead to Te Horo Marae	**Moderate**
Day 12	– Unit 3 – Unit 4 – Unit 5	– Gently sloping hill country – Alluvial Plains	– Existing Road and Road Corridor – Gold, Silver, Bronze and Standard Tier Tracks (Ruatoria Route)	– Instability of the road cutting detailed in the Ruatoria Route Report	– No specific area's along Day 12 trail have been identified as having significant geotechnical risks.	– No specific geotechnical visits or analysis will be required at the design stage	**Low**
Day 13	– Unit 4 – Unit 5	– Alluvial Plains – Moderately sloping hill country	– Existing Road and Road Corridor	– Liquefaction risk for proposed toilet/hut structures – Slope stability above and below the roadway	– No specific area's along Day 13 trail have been identified as having significant geotechnical risks.	– A site drive through to inspect the slopes above and below the roadway should be undertaken	**Low**
Day 14	– Unit 4 – Unit 5	– Moderately to steeply sloping hill country – River Valley – Wetland – Back dunes	– Existing Road and Road Corridor – Standard Tier Track – Existing walking tracks	– Slope stability of track whilst traversing moderately steep slopes towards the East Cape Lighthouse	– Day 14 follows a river valley before traversing up moderately steep slopes towards the lighthouse. A section of the track marked Day 14 Key area on Figure 1538-G20 has been identified as an area with potential stability risks and will require further geotechnical assessment	– Geotechnical slope stability assessment and site mapping will be required to determine an appropriate route through the hills towards the lighthouse	**Moderate**
Day 15	– Unit 3 – Unit 4 – Unit 5	– Back dunes – Beach – Alluvial Plains – Coastal Cliffs	– Existing Road and Road Corridor – Standard Tier Track	– Slope stability and rock fall risk from slopes above the roadway – Coastal erosion of roadway	– No specific area's along Day 15 trail have been identified as having significant geotechnical risks due to the trail typically following the roadway.	– It would be prudent to assess the risk of rockfall from the steep cliff above the roadway and the impact that may have on the trail. – Coastal erosion should be considered along this section of route, however, this will also be	**Low to Moderate**

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Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
						considered by Waka Kotahi	
Day 16	– Unit 3 – Unit 4 – Unit 5	– Dune System – Alluvial Plains – Moderately to steeply sloping hill country – Coastal cliffs	– Existing Road and Road Corridor – Beach – Standard Tier Track – Existing walking track	– Slope stability of proposed track alignment over hill to Hicks Bay	– Day 16 follows the alluvial plains and coastal dunes before traversing over a moderately steep hill to Hicks Bay. A section of the track marked as Day 16 Key area on Figure 1538-G22 has been identified as an area of potential instability requiring further geotechnical assessment	– Geotechnical slope stability assessment and site mapping will be required to determine an appropriate route over the hill to Hicks Bay. – The existing track down to Hicks Bay should be assessed for potential instability	**Moderate**
Day 17	– Unit 3 – Unit 5	– Dune System – Alluvial Plains – River Valley – Gently to moderately sloping hill country	– Existing Road and Road Corridor – Existing walking track – Bronze Tier Track	– Liquefaction and lateral spread risk for proposed bridge structures	– No area's of significant geotechnical hazards have been identified. – The position of the track in relation to the river should be considered at the design stage	– A geotechnical site walkover or review of drone imagery should be undertaken to confirm slope stability and erosion risk	**Low**
Day 18	– Unit 4 – Unit 5	– Gently to moderately sloping hill country – River Plains – River Valley	– Existing Road and Road Corridor – Standard Tier Track	– Slope stability of hillside along river valley	– Day 18 typically follows roadways before heading into a river valley. A section of the track marked Day 18 Key area on Figure 1538-G24 has been identified as an area of potential instability requiring further geotechnical assessment	– Geotechnical slope stability assessment and site mapping will be required to determine an appropriate route into the river valley	**Low to Moderate**
Day 19	– Unit 1 – Unit 2 – Unit 5	– Beach – Dune System – Gently sloping hill country	– Beach – Existing Road and Road Corridor –	– Liquefaction and lateral spread risk for any structures – Coastal erosion of Pacific Coast Highway	– No area's of significant geotechnical hazards have been identified.	– No specific geotechnical visits or analysis will be required at the design stage	**Low**
Day 20	– Unit 1 – Unit 5	– Flat farmland – Beach/Coastal flats – Gently sloping hill country	– Existing Road and Road Corridor – Existing walking tracks – Standard Tier Track	– Slope stability of proposed track alignment under the Pacific Coast Highway. – Coastal erosion of proposed track alignment under Pacific Coast Highway – Liquefaction and lateral spread risk for any structures	– Day 20 is relatively flat with some moderately steep pinch points along the proposed track underneath Pacific Coast Highway. A section of the track marked a Day 20 Key area on Figure 1538-G26 has been identified as an area of potential instability requiring further geotechnical assessment.	– Geotechnical slope stability assessment and potentially a coastal erosion assessment will be required for a section of the trail alignment underneath Pacific Coast Highway. – Coastal and geotechnical assessment of erosion rate at the coastal headland at the start of Day 20 will be required	**Low to Moderate**

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Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
						pending confirmed track alignment.	
Day 21	– Unit 1 – Unit 5	– Gently to moderately sloping coastal hills – Beach	– Existing Road and Road Corridor – Standard Tier Track – Beach – Existing Footpath	– Slope stability of proposed track alignment under the Pacific Coast Highway. – Coastal erosion of proposed track alignment under Pacific Coast Highway	– Day 21 is relatively flat with some moderately sloping coastal hills. A section of the track marked as Day 21 Key area on Figure 1538-G27, has been identified as an area of potential instability requiring further geotechnical assessment.	– Geotechnical slope stability assessment and potentially a coastal erosion assessment will be required for a section of the trail alignment underneath Pacific Coast Highway.	**Low to Moderate**
Day 22	– Unit 1 – Unit 5	– Coastal Flats – Dune System	– Existing Footpath – Existing Road and Road Corridor – Standard Tier Track	– Coastal erosion where the road is near the ocean – Liquefaction and lateral spread risk for any structures	– This section of the track is relatively flat and is located on competent rock that has typically low erosion rates. No areas of significant geotechnical hazards have been identified.	– Geotechnical site visits will likely not be required unless the track alignment changes.	**Low**
Day 23	– Unit 1 – Unit 5	– Moderately to steeply sloping hill country – River Plains – Beach	– Proposed Taxi Service	– Due to steep slopes, large river crossings and narrow roads this section of the track is proposed to use a taxi/shuttle service	– N/A	– If the taxi/shuttle system is to be removed and a route is to be cut along the hillslope, geotechnical investigation and mapping will be required	**Low** – if implementing the taxi/shuttle service **High** – if a track is proposed to be cut along the hill slope
Day 24	– Unit 1 – Unit 5	– Moderately to steeply sloping hill country – River Plains – Beach	– Proposed Taxi Service	– Due to steep slopes and narrow roads this section of the track is proposed to use a taxi/shuttle service	– N/A	– If the taxi/shuttle system is to be removed and a route is to be cut along the hillslope, geotechnical investigation and mapping will be required	**Low** – if implementing the taxi/shuttle service **High** – if a track is proposed to be cut along the hill slope
Day 25	– Unit 1 – Unit 5	– Beach – River Plains – Gently to moderately sloping hill country	– Beach – Existing Road and Road Corridor	– Coastal erosion of dunes/beach – Slope stability along road corridor	– No area's of significant geotechnical hazards have been identified	– Geotechnical site visit/walkover to inspect the slope stability of the slopes above the roads. Safety of roads and maintenance should be covered by Waka Kotahi	**Low**
Day 26	– Unit 5	– Dune Systems – Beach – River Plains	– Existing Motu Trails – Existing Road and Road Corridor	– Coastal erosion of dunes – Liquefaction and lateral spread risk for any structures	– No area's of significant geotechnical hazards have been identified	– No specific geotechnical visits or analysis will be required at the design stage	Low
Hikurangi Loop Track							

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Trail Day	Mapped Geological Unit[1]	Topography of the Track Alignment	Proposed Track Types	Potential Geotechnical Hazards	Key areas of Geotechnical Hazards	Geotechnical Input Required at the Design Stage	Preliminary Risk Rating
Day 1	– Unit 2 – Unit 3 – Unit 5	– River Valley – River Plains	– Standard Tier Track	– Liquefaction and lateral spread risk for any structures	– Day 1 of the Hikurangi Loop is relatively flat and has no areas of significant geotechnical hazards.	– No specific geotechnical visits or analysis will be required at the design stage, however, it would be prudent to visit this section of the track whilst assessing the remainder of the loop track	Low
Day 2	– Unit 2 – Unit 5	– Moderately to steeply sloping hill country	– Standard Tier Track	– Slope stability risk of the track along the ridgeline whilst traversing step slopes	– Day 2 traverses steep hillslopes that have evidence of historic slopes failures. The entire section of the track is considered a stability risk and requires further geotechnical assessment.	– Geotechnical slope stability assessment and mapping will be required at the design stage to assess a suitable route through the steep terrain.	Moderate to High
Day 3	– Unit 2	– Moderately to steeply sloping hill country	– Standard Tier Track	– Slope stability risk of the track along the ridgeline whilst traversing step slopes	– Day 3 continues to traverse steep hillslopes towards the summit of Mt Hikurangi. This section of the is typically vegetated and there is less evidence of historic slope instability. Due to the steep terrain the entire section of the track is considered a stability risk and further geotechnical assessment will be required	– Geotechnical slope stability assessment and mapping will be required at the design stage to assess a suitable route through the steep terrain.	Moderate
Day 4	– Unit 2 – Unit 5	– Moderately to steeply sloping hill country – River Valley	– Standard Tier Track	– Slope stability risk along the slopes at the beginning of Day 4 – Liquefaction and lateral spread risk for any structures	– Day 4 traverses down the hillslope and follows a river valley for the remainder of the day. No areas of specific geotechnical hazards have been identified on Day 4.	– No specific geotechnical visits or analysis will be required at the design stage, however, it would be prudent to visit this section of the track whilst assessing the remainder of the loop track	Low
Day 5	– Unit 2 – Unit 3 – Unit 5	– River Valley – River Plains	– Standard Tier – Existing Road and Road Corridor	– No specific hazards have been identified through Day 5	– Day 5 continues along the river valley and alluvial plain to the end of the loop track. No areas of specific geotechnical hazards have been identified on Day 5.	No specific geotechnical visits or analysis will be required at the design stage, however, it would be prudent to visit this section of the track whilst assessing the remainder of the loop track	Low

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6. Typical Engineering Solutions for High Risk Areas

6.1 General

Engineering solutions may be required along sections of the track to improve or eliminate slope stability risks. The extent, size and type of engineering solutions will be determined after site specific investigation and analysis. Due to the costly nature of designing and constructing engineered solutions, and an appreciation for the overall size of project, it is the aim of the project manager (CPS) and Initia to avoid significant engineered solutions where possible. Detailed geological mapping and track location refinement at the detailed design stage will aim to inform the design process and minimise the reliance on engineering structures/solutions.

If required, below are examples of engineering solutions that could be implemented throughout the track.

6.1.1 Retaining Walls

Retaining walls could be implemented to mitigate stability risks along the proposed track alignment. Walls can be used to support cut faces along steep slopes and can be installed as in ground walls to improve the down slope stability. Typical retaining walls that could be implemented are timber pole walls, geogrid reinforced walls and gravity stone walls. If walls are required for a section of the track, geotechnical investigation and analysis will be required. The retaining walls will be optimised at the specific design stage to utilise local materials where possible, and with the aim that they can be constructed by local contractors without requiring specialist equipment.

6.1.2 Soil Nail and Mesh

Soil nails and a combination of high tensile steel mesh with erosion matting can be installed locally on portions of oversteepend slopes to protect from this risk local slumping. This solution can be placed above portions of the track to mitigate overslip risks and below the track to mitigate underslip risks. The method will require geotechnical investigation and analysis. Specialist contractors will be required to undertake the work and thus costs are typically high.

6.1.3 Earthworks

Earthworks can be utilised to improve the stability of moderately sloping ground by battering or regrading the slope to more optimal slope angles. Drainage can also be implemented such as subsoil drains and horizontal drains which can aid in decreasing saturation of soils and lower pore water pressures from slope. It is unlikely that significant earthworks will be desired by the client as the project will aim to cause minimal disruption of the natural landscape.

7. Preliminary Pavement Design and Foundation Advice

7.1 General

Preliminary advice on pavement and foundation design for each track tier is provided below. Site specific testing and advice will be required at the design stage of the project.

7.2 Raised Boardwalk Tier

This track will be a raised timber boardwalk supported on short timber poles embedded approx. 300 mm – 500 mm (below any topsoil). Scala Penetrometer testing will be required to assess embedment depth of the poles. All foundations should be extended below any topsoil, organics or soft material which may be present with the depth range of the pole foundations.

Specific design may be required for structures that are elevated more than 1 m above ground level. Slope stability in addition to the potential consequential effects of the liquefaction (loss of bearing or lateral spread) would need to be considered.

7.3 Boardwalk Tier

The boardwalk tier track can be constructed at grade following stripping and removal of topsoil and any soft organics from the surface. If the subgrade is found to be wet and soft at the surface during construction, it would be prudent to complete a small undercut and lay a 100 mm layer of aggregate to mitigate potential settlements of the wooden boardwalk. As the track will be constructed at grade, it will be important to ensure drainage is considered to avoid erosion and softening of the subgrade.

Subgrade CBRs will be assessed at the design stage based on geotechnical testing and the corresponding ground conditions.

7.4 Gravel Tier Track

As with the boardwalk track, a gravel track will require the removal of all topsoil and soft organics at the surface and placement of 100 mm of aggregate. The aggregate should be compacted with a small compactor to lock/bind the aggregate together. Compaction testing of the aggregate will not be required, however, it is recommended that the track is inspected by the civil engineer to ensure that the track surface is graded sufficiently, and surface water runoff is collected and diverted to avoid erosion of the surface.

Subgrade CBRs will be assessed at the design stage based on geotechnical testing and the corresponding ground conditions.

7.5 Standard Tier Track

The Standard Tier Track will not require any engineering input for design. It is recommended that cuts into slopes are avoided where possible. If cuts are required, a geotechnical engineer should inspect the cut and assess if any retaining may be required.

8. Further Work

8.1 General

Throughout the detailed design and construction of the trail, geotechnical input will be required at different stages to investigate, analyse, and provide construction monitoring services. Presented below are preliminary requirements for the design and construction stage of the project. We understand that the track would be constructed in stages, and the overall Te Ara Tipuna trail will not be completed for many years.

8.2 Design Stage

8.2.1 Track Site Mapping and Alignment Advice

At the design stage it is critical that sections of the trail with potential geotechnical hazards are inspected, and geological mapping is undertaken to refine the track alignment. It is expected that any of the sections of track that are located on moderately to steeply sloping ground will need to be inspected to assess the stability risk of the proposed track. It would be prudent for aerial imagery and topographical survey of the track to be undertaken using a drone which will benefit geological mapping of the alignments.

At the design stage, Initia will assess what areas of the track will need site visits, and if any investigation or further design will be required.

8.2.2 Track Structures Considerations

Track structures that require Resource and Building Consents will require geotechnical investigation, analysis and a separate report to support the consenting processes and requirements. Shelters and huts along the trail will likely require basic geotechnical investigations such as hand auger and Scala Penetrometer testing. Bridges will require more significant geotechnical testing comprising machine borehole and cone penetration tests which will be required to assess the ground conditions for pile foundations and to assess liquefaction and lateral spread risks.

Initia will assess the geotechnical requirement for each structure on a case by case basis and provide advice on how to proceed at the appropriate time.

8.2.3 Slope Stability Assessment and Investigation

It is the aim of Initia to minimise the need for significant geotechnical investigation and design solutions by avoiding areas with high stability risks, however, in sections of the track, an engineered solution may be required to proceed with the desired track alignment. If an engineered solution is required such as a retaining wall, soil nails/mesh, and/or large scale earthworks, then geotechnical site specific investigations will be required to assess the subsoil conditions, undertake a slope stability assessment and to provide an appropriate design solution. The design of such engineered solutions will be highly dependent on the local ground conditions at each site.

If tracks are to be located above a coastal seacliff and the track is inside an identified coastal hazard zone, a coastal and geotechnical assessment will be required to assess potential erosion rates and stability of the coastal seacliff. Investigation and geological mapping may be required to assess the potential stability and erosion rate of the seacliffs.

8.3 Construction

8.3.1 Trail Construction Considerations

It is essential that at the construction stage of the project that a geotechnical engineer undertake periodic observations and testing to confirm the ground conditions are consistent with the inferred ground conditions based on testing undertaken along the corresponding section of the track.

Preliminary testing and observation guidelines are provided below and are to be confirmed and refined for applicable sections of the track at the design stage:

1. Observations should be made along sloping sections of the track to confirm there is no visible evidence of slope instability.
2. Observations should be made to confirm topsoil has been stripped from the track location. Appraisal of any soft spots should be undertaken after topsoil is removed.
3. Scala Penetrometer testing should be undertaken at 10 m intervals along the proposed Raised Boardwalk Tier Track. Testing should meet the required engineering specification that will be assessed and provided at the design stage.

8.3.2 Track Structures Construction

Geotechnical construction observations will be required for all track structures that required a resource and building consent. Observation requirements will be determined at the design stage and will be dependent on the type of structure.

9. Conclusions

This geotechnical report has been prepared to support the preliminary track alignment and Resource Consent application for the Te Ara Tipuna Trail. The following key conclusions for the Te Ara Tipuna Trail are detailed below:

Conclusions:

1. The track is located in an area of complex geology with typically steep topography throughout the region and thus has many associated geotechnical hazards.
2. This assessment report is based on a desktop study with limited visual observation and accuracy constraints of available aerial imagery. The risk assessment advice provided should be considered preliminary in nature to inform a staged approach to the design, and to estimate the scope of future geotechnical assessments.
3. The main geotechnical hazards for the Te Ara Tipuna Trail is slope instability through moderately to steeply sloping hill country found throughout the region. Liquefaction and lateral risk will need to be considered for structures built on Quaternary sediments.
4. Based on the initial desktop study and site visit, the track is considered to be geotechnically feasible with the correct geotechnical consultation through the design stage.
5. Geotechnical site mapping and assessment with be required throughout the design stage to refine the track alignment and mitigate geotechnical risks.
6. It is not envisaged that significant engineering solutions will be required to create the Te Ara Tipuna Trail.
7. Geotechnical investigation, reporting and analysis will be required for any structure requiring a resource and building consent.

10. Applicability

This report has been prepared for our client, HRM & Associates, with respect to the brief provided to us. The advice and recommendations presented in this report should not be applied to any other project or used in any other context without prior written approval from Initia Limited.

Report prepared by:

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Engineering Geologist

Report reviewed by:

Andy Pomfret
Senior Geotechnical Engineer

Document control record

Report Title		Te Ara Tipuna Trail – Gisborne to Opotiki Geotechnical Assessment Report			
Initia Project Reference		P-001538			
Client		HRM & Associates			
Revision	Date	Revision detail	Author	Reviewer	Approved by
1	16-06-2023	Draft	Q. Sorensen	B. Roy	A. Pomfret
2	23/06/23	Resource Consent	Q. Sorensen	A. Pomfret	A. Pomfret
Current Revision		2			

Appendix A Figures

LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

DRAWING REFERENCES

- A - 1538-G02
- B - 1538-G03
- C - 1538-G04
- D - 1538-G05
- E - 1538-G06
- F - 1538-G07
- G - 1538-G08
- H - 1538-G09
- I - 1538-G10
- I-1 - 1538-G11
- I-2 - 1538-G12
- I-3 - 1538-G13
- I-4 - 1538-G14
- I-5 - 1538-G15
- I-6 - 1538-G16
- J - 1538-G17
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- N - 1538-G21
- O - 1538-G22
- P - 1538-G23
- Q - 1538-G24
- R - 1538-G25
- S - 1538-G26
- T - 1538-G27
- U - 1538-G28
- V - 1538-G29
- W - 1538-G30
- X - 1538-G31
- Y - 1538-G32

DAY 1
DAY 2
DAY 3
DAY 4
DAY 5
DAY 6
DAY 7
DAY 8
DAY 9
DAY 10
DAY 11
DAY 12
DAY 13
DAY 14
DAY 15
DAY 16
DAY 17
DAY 18
DAY 19
DAY 20
DAY 21
DAY 22
DAY 23
DAY 24
DAY 25
DAY 26
LOOP DAY 1
LOOP DAY 2
LOOP DAY 3
LOOP DAY 4
LOOP DAY 5

N

NOTES
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. COORDINATE DATUM: POVERTY BAY
3. AERIAL IMAGE TAKEN FROM GOOGLE EARTH PRO.

SCALE A3 1:600,000

0 5000 10,000 15,000 20,000 25,000 30,000m

INFORMATION ONLY

Rev	Revision Description	Designed	Drawn	Checked
B	REVISED ISSUE (21/06/2023)	QS	GG	QS
A	FIRST ISSUE (23/02/2023)	QS	GG	QS

NOT FOR CONSTRUCTION

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED AS APPROVED

APPROVED:

DATE:

Scale AS SHOWN Original Size A3

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HRM & ASSOCIATES

TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
OVERALL PLAN
(SHEET LAYOUT)

Initia Project ref: P001538

Figure Number 1538-G01

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

N

NEW CLIP ON BRIDGE

DAY 1

PUBLIC TOILET

ROAD CROSSING

PUBLIC TOILET

PUBLIC TOILET

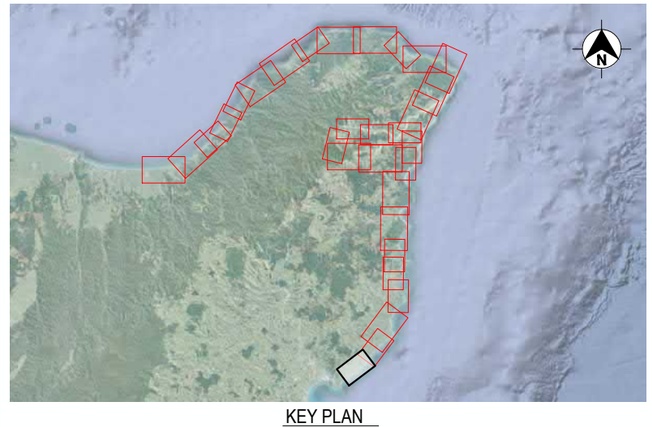
ROAD CROSSING

ROAD CROSSING

ROAD CROSSING

DAY 1 KEY HAZARD AREA 1

DAY 1 KEY HAZARD AREA 2



KEY PLAN
SCALE : NTS

NOTES
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3. LEVEL DATUM: NEW ZEALAND VERTICAL DATUM 2016 (NZVD2016)
4. AERIAL IMAGE AND LIDAR CONTOUR TAKEN FROM LINZ DATA.

SCALE A3 1:30,000
0 400 800 1200 1600m

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B	REVISED ISSUE (21/06/2023)	QS	GG	QS
A	FIRST ISSUE (23/02/2023)	QS	GG	QS

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INITIA
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HRM & ASSOCIATES

TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 1 PLAN

Initia Project ref: P001538

Figure Number 1538-G02

Revision B

D:\INITIA LIMITED\INITIA LIMITED - TEAM\SITE - 1501-1600\P-001538 - TE ARA TIPUNA TRAIL\CAD\2. WORKING FILES\1538-G02.DWG, 6/21/2023 8:27 AM

LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

NEW CLIP ON BRIDGE

DAY 1

PUBLIC TOILET

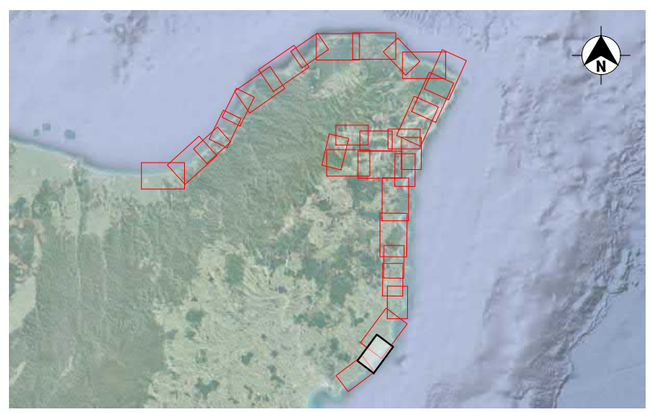
DAY 2 KEY HAZARD AREA

NEW BRIDGE

WHANGARA (WHITIREIA) MARAE

DAY 2

NEW BRIDGE



KEY PLAN
SCALE : NTS

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0 400 800 1200 1600m

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 2 PLAN

Initia Project ref: P001538

Figure Number 1538-G03

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

N

PUBLIC TOILET

NARROW HIGH RISK AREA

DAY 3

INITIA SITE OF INTEREST

ECOLOGICAL SITE OF INTEREST

TOILET/SHELTER

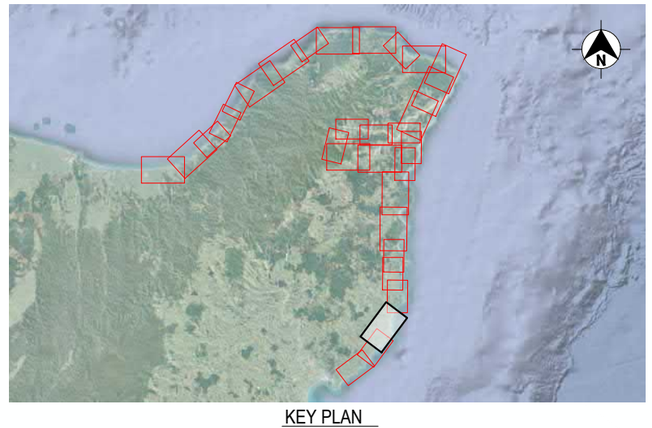
NEW BRIDGE

NEW BRIDGE

NEW BRIDGE

WHANGARA (WHITIREIA) MARAE

DAY 2



KEY PLAN
SCALE : NTS

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SCALE A3 1:40,000

0 400 800 1200 1600 2000m

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 3 PLAN

Initia Project ref: P001538

Figure Number 1538-G04

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

NARROW HIGH RISK AREA

PUBLIC TOILET

DAY 3

DAY 4 KEY HAZARD AREA

TE POHO O TE RAWHEORO MARAE

PUBLIC TOILET

HAUITI MARAE

DAY 4

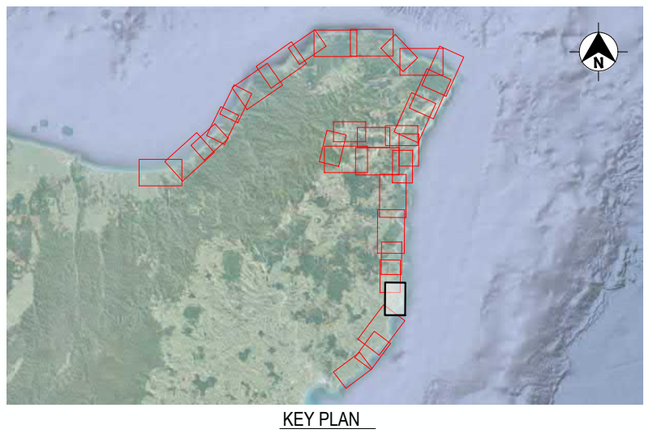
MAI MARAE

EARNEST REEVE WALKWAY

DAY 5 KEY HAZARD AREA

COOKS COVE WALKWAY START (EASY)

COOKS COVE WALKWAY END



KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 4 PLAN

Initia Project ref: P001538

Figure Number 1538-G05

Revision B

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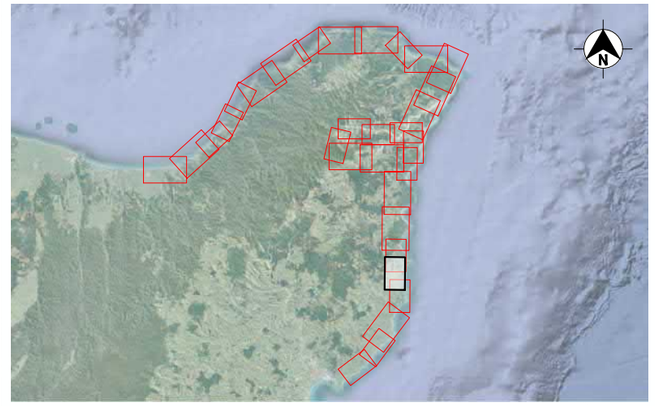
LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

N



KEY PLAN
SCALE : NTS

TE POHO O TE RAWHEORO MARAE
PUBLIC TOILET
HAUITI MARAE
DAY 4
MAI MARAE
PUKETAWAI MARAE
EARNEST REEVE WALKWAY
DAY 5 KEY HAZARD AREA
COOKS COVE WALKWAY START (EASY)
TOILET/SHELTER
DAY 5

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 5 PLAN

Initia Project ref: P001538

Figure Number 1538-G06

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

HINEMAUREA KI MANGATUNA MARAE

OKURI MARAE

TOILET/SHELTER

DAY 5

INITIA SITE OF INTEREST

CAMPSITE/PUBLIC TOILET

ANAURA BAY TRACK START (CLOSED) (EASY)

ANAURA BAY CAMPSITE

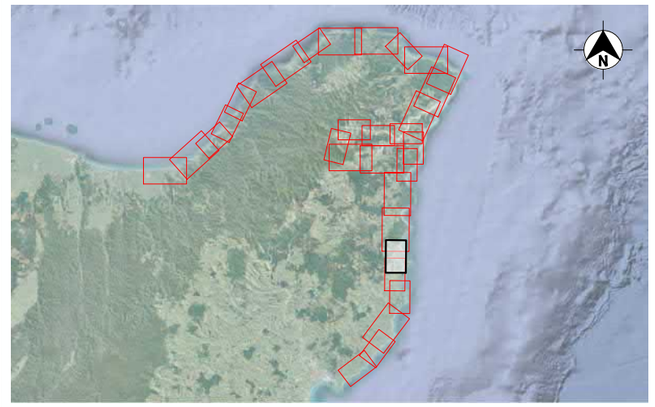
ANAURA BAY TRACK (END)

ANAURA BAY CAMPSITE

DAY 6

DAY 6 KEY HAZARD AREA 1

HINETAMATEA (ANAURA) MARAE



KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 6 PLAN

Initia Project ref: P001538

Figure Number 1538-G07

Revision B

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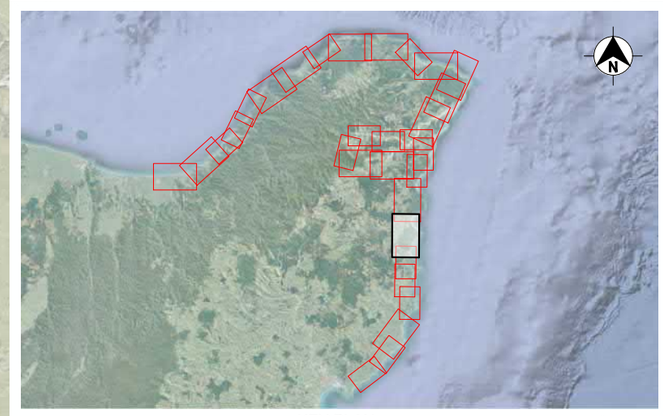
LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK



KEY PLAN
SCALE : NTS

ANAURA BAY TRACK START (CLOSED) (EASY)
CAMPSITE/PUBLIC TOILET
ANAURA BAY CAMPSITE
ANAURA BAY TRACK (END)
ANAURA BAY CAMPSITE
DAY 6 KEY HAZARD AREA 1
DAY 6
HINETAMATEA (ANAURA) MARAE
TOILET/SHELTER
DAY 6 KEY HAZARD AREA 2
INITIA SITE OF INTEREST
TUATINI MARAE
DAY 7
PUBLIC TOILET
PAKIRIKIRI MARAE
WAIPARAPARA MARAE
SMALL FOOT BRIDGES ACROSS OPEN DRAINS

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 7 PLAN

Initia Project ref: P001538
Figure Number 1538-G08
Revision B

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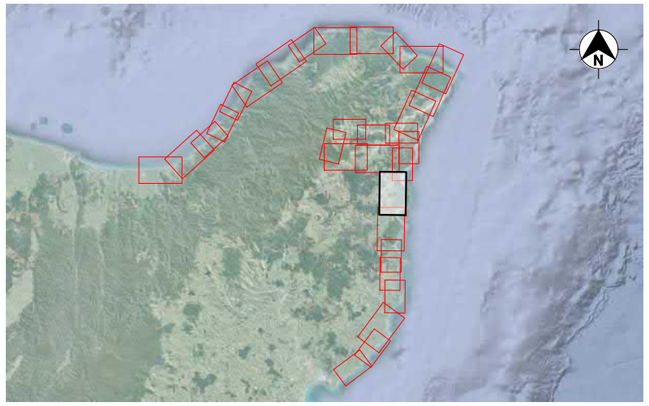
LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK



KEY PLAN
SCALE : NTS

DAY 7
PUBLIC TOILET
PAKIRIKIRI MARAE
WAIPARAPARA MARAE
SMALL FOOT BRIDGES ACROSS OPEN DRAINS
TUATINI MARAE
TE PUKA TAVERN
TE ARIURU MARAE
PUBLIC TOILET
TOKOMARU BAY WHARF
PUBLIC TOILET
INITIA SITE OF INTEREST
DAY 8 KEY HAZARD AREA
TAHARORA MARAE
HIKURANGI LOOP START
TOILET/SHELTER
DAY 8
RITEKURA MARAE

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 8 PLAN

Initia Project ref: P001538

Figure Number 1538-G09

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

TAHARORA MARAE

KIEKIE MARAE

HIKURANGI LOOP START

TOILET/SHELTER

DAY 8

IRITEKURA MARAE

DAY 9 KEY HAZARD AREA

SMALL BRIDGE 2023

TOILET/SHELTER

DAY 9

WHAREPONGA MARAE

KEY PLAN
SCALE : NTS

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 9 PLAN

Initia Project ref: P001538
Figure Number 1538-G10
Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

HIRUHARAMA MARAE

RONGOITEKAI (PENU) MARAE

LOOP DAY 1

TOILET/SHELTER/HUT

RONGOHAERE MARAE

KEY HAZARD AREA DAY 2 LOOP

TOILET/SHELTER

KIEKIE MARAE

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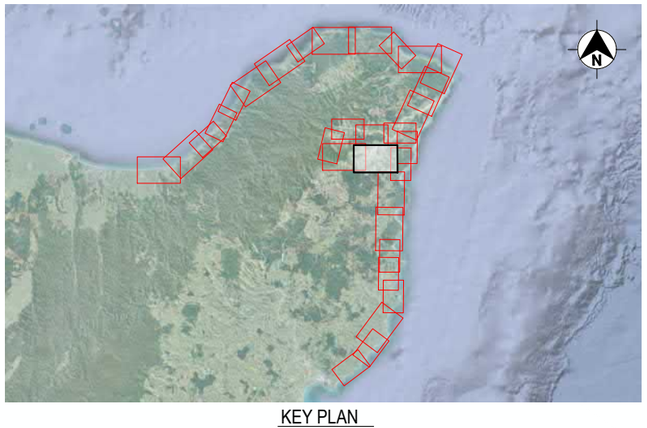

KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 1 PLAN

Initia Project ref: P001538

Figure Number 1538-G11

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

HIKURANGI END

BRIDGE

LOOP DAY 2

HUT

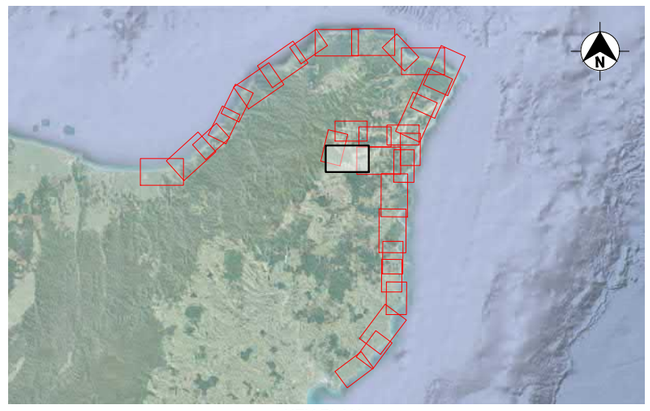
LOOP DAY 1

TOILET/SHELTER/HUT

KEY HAZARD AREA DAY 2 LOOP

BRIDGE

N



KEY PLAN
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 2 PLAN

Initia Project ref: P001538

Figure Number 1538-G12

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

EAST-WEST PARK BOUNDARY TO ORONUI HUT

HIKURANGI START (ADVANCED)

LOOP DAY 3

HIKURANGI END

BRIDGE

HUT

LOOP DAY 2

KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 3 PLAN

Initia Project ref: P001538

Figure Number 1538-G13

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

LOOP DAY 4

TOILET/SHELTER/HUT

LOOP DAY 3

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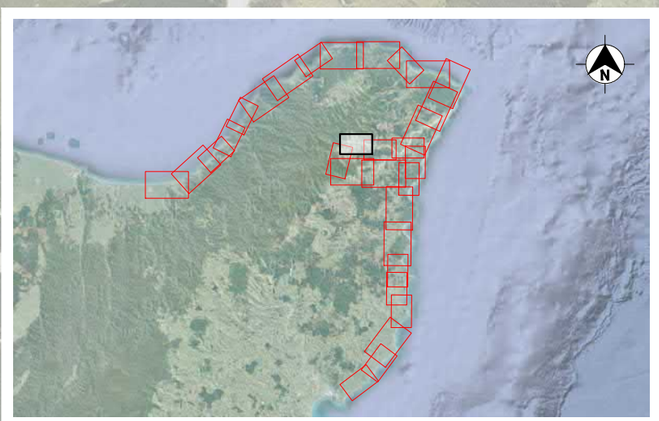

KEY PLAN
SCALE : NTS

INFORMATION ONLY

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B	REVISED ISSUE (21/06/2023)	QS	GG	QS
A	FIRST ISSUE (23/02/2023)	QS	GG	QS

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INITIA GEOTECHNICAL SPECIALISTS

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HRM & ASSOCIATES

TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 4 PLAN

Initia Project ref: P001538

Figure Number 1538-G14

Revision B

LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

LOOP DAY 4

TOILET/SHELTER/HUT

TE HAEPERA (MANGARUA) MARAE

TE AOWERA (WHAKAPAURANGI PA) MARAE

N

NOTES
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4. AERIAL IMAGE AND LIDAR CONTOUR TAKEN FROM LINZ DATA.

SCALE A3 1:30,000

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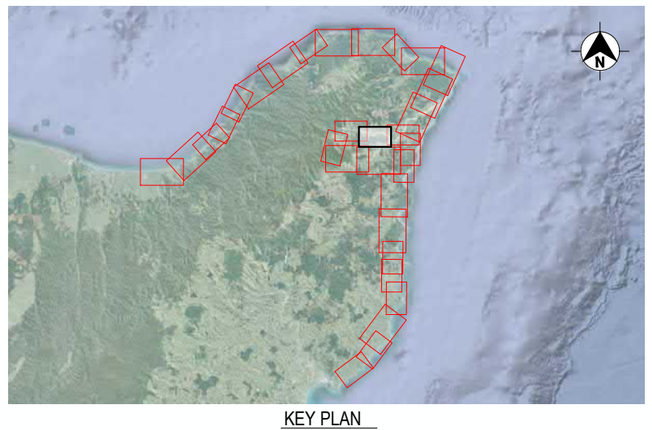

KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 5 PLAN - SHEET 1

Initia Project ref: P001538

Figure Number 1538-G15

Revision B

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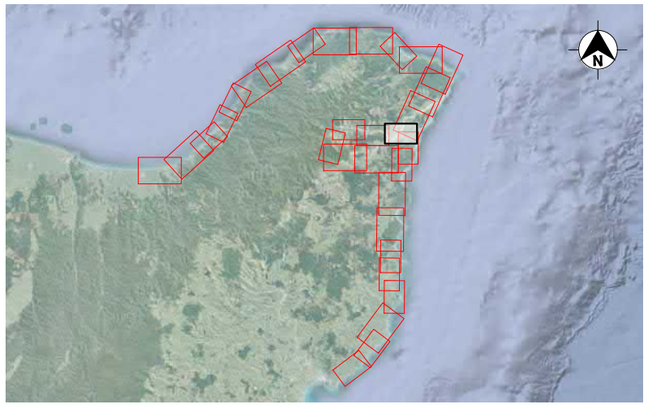
LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK



KEY PLAN
SCALE : NTS

TINE TOKA MARAE

DAY 11 KEY HAZARD AREA

DAY 10

TOILET/SHELTER

REPORUA MARAE

HIKURANGI LOOP END

DAY 11

LOOP DAY 5

UEPOHATU MARAE

PUBLIC TOILET

MANGAHANEA MARAE

RAURU (TAUMATA O MIHI) MARAE

TE AOWERA MARAE

UMUARIKI MARAE

KARAIKA (NGATI POROU) MARAE

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
LOOP DAY 5 PLAN - SHEET 2
AND DAY 11 PLAN

Initia Project ref: P001538

Figure Number 1538-G16

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

N

MANGAHANEA MARAE

SMALL BRIDGE 2023

TOILET/SHELTER

DAY 9

WHAREPONGA MARAE

UMUARIKI MARAE

RUATAUPARE MARAE

UMUARIKI MARAE

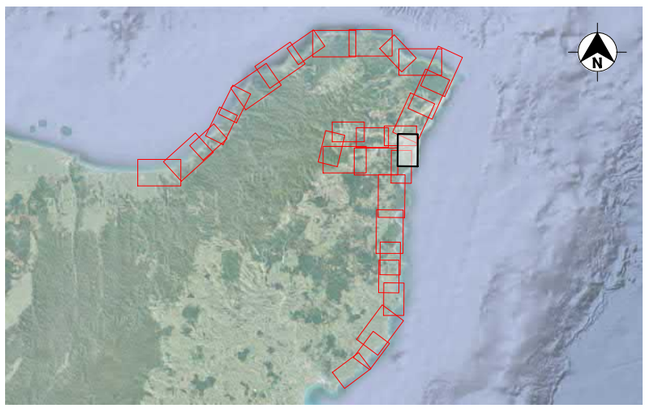
OLD BRIDGE LOCATION

DAY 10

TOILET/SHELTER

REPORUA MARAE

HIKURANGI LOOP END



KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 10 PLAN

Initia Project ref: P001538

Figure Number 1538-G17

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

TINE TOKA MARAE

KAKARIKI MARAE

KAIWAKA MARAE

PUTAANGA MARAE

KARUWAI MARAE

PUBLIC TOILET

RAHUI MARAE

BRIDGE

DAY 12

WAIOMATATINI (POROURANGI) MARAE

DAY 11 KEY HAZARD AREA

TE HORO MARAE

DAY 10

TOILET/SHELTER

REPORUA MARAE

TIKAPA MARAE

HINEPARE MARAE

HIKURANGI LOOP END

KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 12 PLAN

Initia Project ref: P001538

Figure Number 1538-G18

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

KAIWAKA MARAE

PUTAANGA MARAE

KARUWAI MARAE

PUBLIC TOILET

RAHUI MARAE

DAY 12

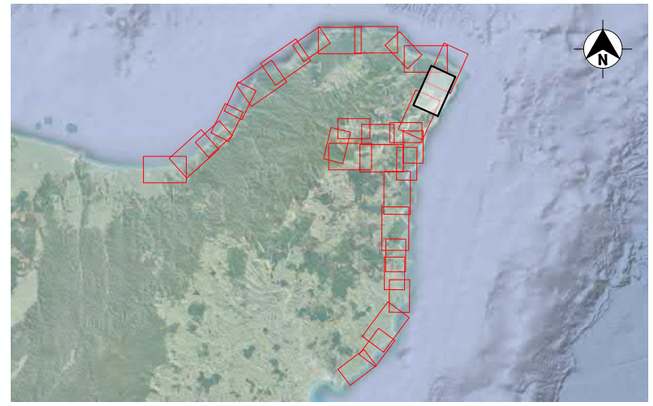
TIKAPA MARAE

HINEPARE MARAE

TOILET/SHELTER/HUT

DAY 13

OHINEWAIAPU MARAE



KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 13 PLAN

Initia Project ref: P001538

Figure Number 1538-G19

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

BEACH ACCESS INSTEAD OF CLIP ON
MA TAHI O TE TAU MARAE

DAY 14

TOILET/SHELTER/HUT

DAY 13

ROAD CROSSING

DAY 14 KEY HAZARD AREA

PUBLIC TOILET

EAST CAPE ROAD END

EAST CAPE LIGHTHOUSE

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SCALE A3 1:40,000
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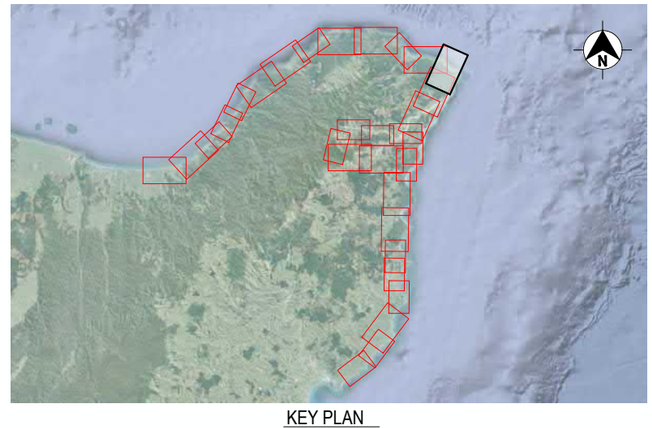

KEY PLAN
SCALE : NTS

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 14 PLAN

Initia Project ref: P001538

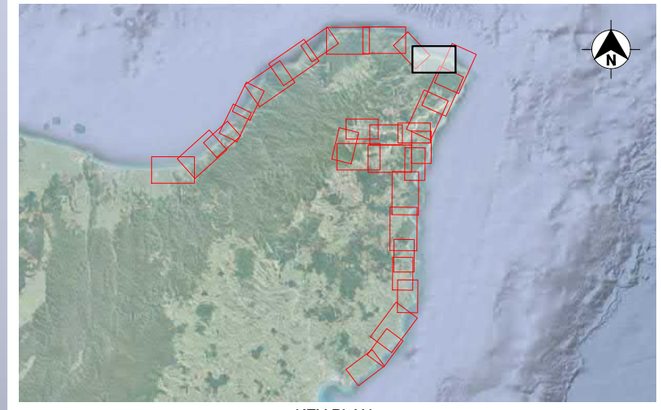
Figure Number 1538-G20

Revision B

LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

N



KEY PLAN
SCALE : NTS

NEW CLIP ON BRIDGE
DAY 15
PUBLIC TOILET
TE ARAROA
HINERUPE MARAE
NEW CLIP ON BRIDGE
EAST CAPE ROAD START
TUTUA (PAERAUTA) MARAE
TOILET/SHELTER
NEW CLIP ON BRIDGE
BEACH ACCESS INSTEAD OF CLIP ON
MA TAHI O TE TAU MARAE
DAY 14

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 15 PLAN

Initia Project ref: P001538

Figure Number 1538-G21

Revision B

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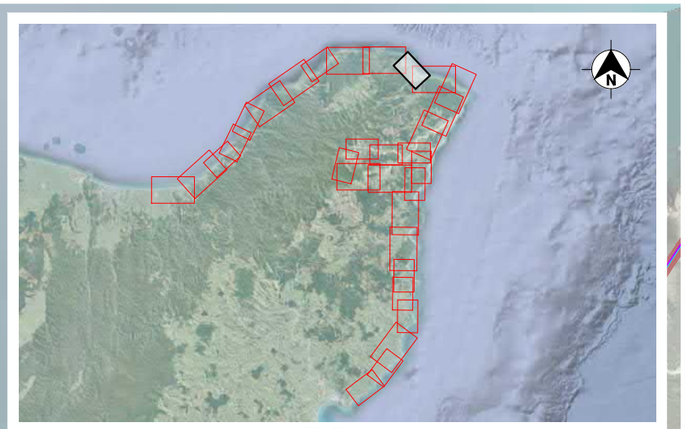
LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK



KEY PLAN
SCALE : NTS

PUBLIC TOILET
DAY 15
PUBLIC TOILET
NEW CLIP ON BRIDGE
EAST CAPE ROAD START
HINERUPE MARAE
DAY 16 KEY HAZARD AREA
NEW CLIP ON BRIDGE
TE ARAROA
PUNARUKU MARAE
NEW CLIP ON BRIDGE
DAY 16
HICKS BAY
PUBLIC TOILET
NARROW HIGH RISK AREA
HINEMAUREA KI WHAREKAHIKA
TUTUA (PAERAUTA) MARAE
WAIHIRERE FALLS START
WAIHIRERE FALLS END

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 16 PLAN

Initia Project ref: P001538
Figure Number 1538-G22
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LEGEND

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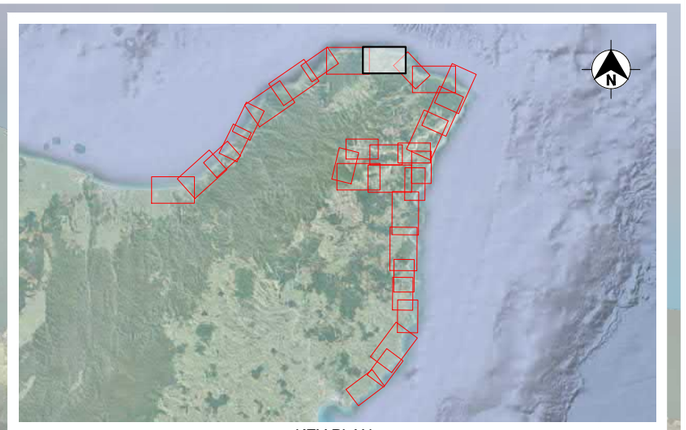
- HORSE TRACK



KEY PLAN
SCALE : NTS

PUBLIC TOILET

DAY 17

SMALL RIVER CROSSING BRIDGE

TOILET/SHELTER

PUBLIC TOILET

NEW CLIP ON BRIDGE

DAY 16

HICKS BAY

HINEMAUREA KI WHAREKAHIKA

PUBLIC TOILET

WAIHIRERE FALLS START

NARROW HIGH RISK AREA

WAIHIRERE FALLS END

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 17 PLAN

Initia Project ref: P001538

Figure Number 1538-G23

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LEGEND

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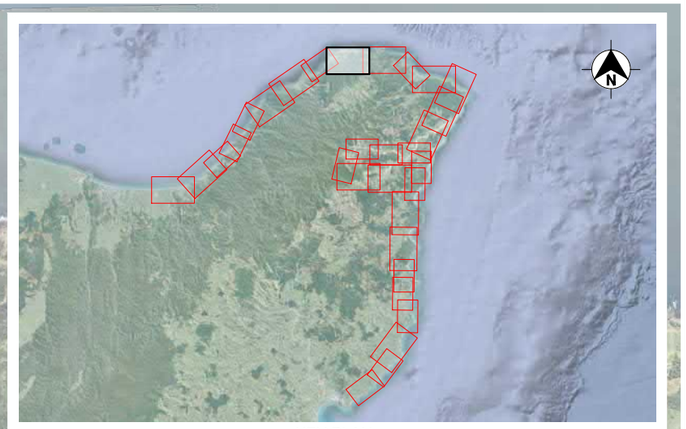

KEY PLAN
SCALE : NTS

DAY 18 KEY HAZARD AREA

ROAD CROSSING

TOILET/SHELTER

DAY 18

NEW CLIP ON BRIDGE

DAY 17

OTOPOTEHETEHE LAKE

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 18 PLAN

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Figure Number 1538-G24

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LEGEND

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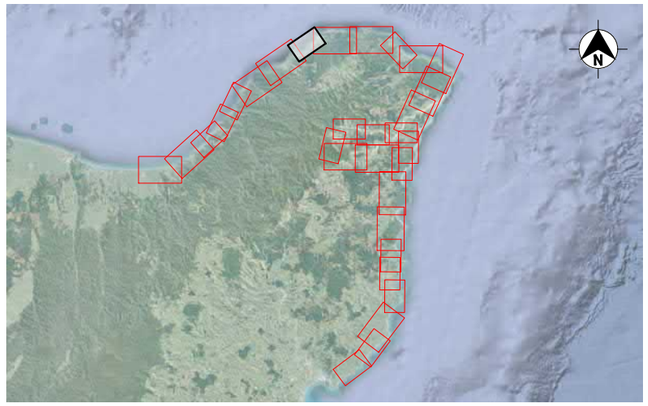

KEY PLAN
SCALE : NTS

DAY 19

TOILET

NEW CLIP ON BRIDGE

TOILET/SHELTER

ROAD CROSSING

DAY 18

NEW CLIP ON BRIDGE

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 19 PLAN

Initia Project ref: P001538

Figure Number 1538-G25

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LEGEND

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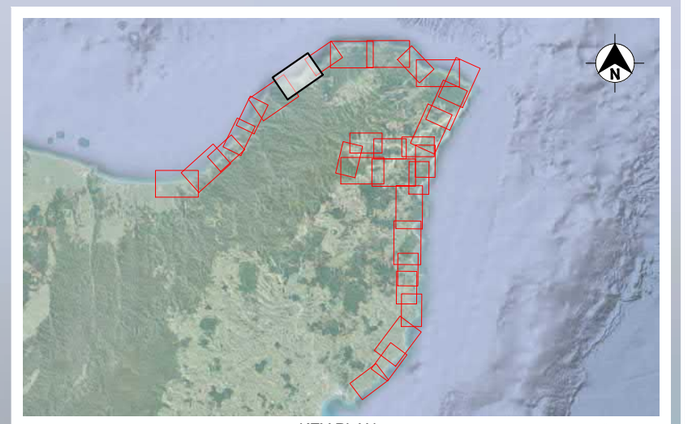

KEY PLAN
SCALE : NTS

DAY 21 KEY HAZARD AREA

DAY 20 KEY HAZARD AREA

TOILET

DAY 20

NEW CLIP ON BRIDGE

DAY 19

TOILET

CLIP ON BRIDGE

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 20 PLAN

Initia Project ref: P001538

Figure Number 1538-G26

Revision B

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LEGEND

- BIKING TRACK
- WALKING TRACK
- HORSE TRACK

DAY 21

PUBLIC TOILET

ROAD CROSSNG

DAY 21 KEY HAZARD AREA

TOILET

DAY 20

NEW CLIP ON BRIDGE

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. COORDINATE DATUM: POVERTY BAY 2000
3. LEVEL DATUM: NEW ZEALAND VERTICAL DATUM 2016 (NZVD2016)
4. AERIAL IMAGE AND LIDAR CONTOUR TAKEN FROM LINZ DATA.

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KEY PLAN

SCALE : NTS

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B	REVISED ISSUE (21/06/2023)	QS	GG	QS
A	FIRST ISSUE (23/02/2023)	QS	GG	QS

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GEOTECHNICAL INVESTIGATION
DAY 21 PLAN

Initia Project ref: P001538

Figure Number 1538-G27

Revision B

LEGEND

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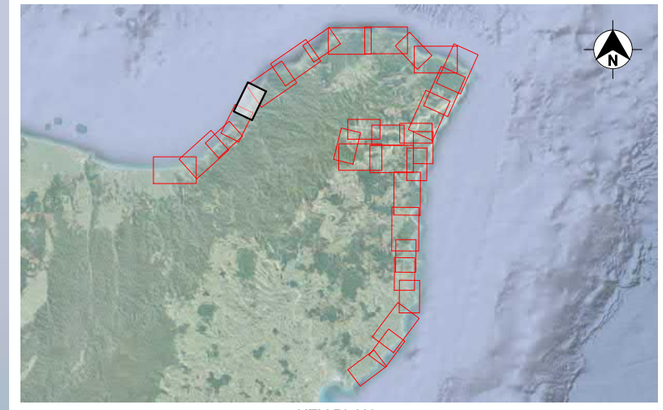
- WALKING TRACK
- HORSE TRACK



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DAY 22

TOILET

DAY 21

NEW CLIP ON BRIDGE

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GEOTECHNICAL INVESTIGATION
DAY 22 PLAN

Initia Project ref: P001538

Figure Number 1538-G28

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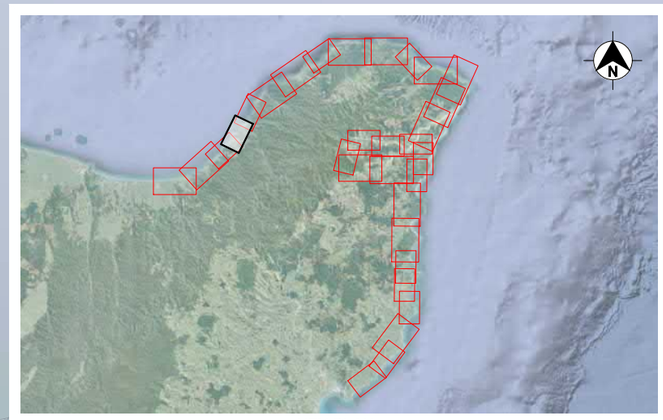

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DAY 23
TOILET
DAY 22
TOILET
NARROW HIGH RISK AREA
NEW CLIP ON BRIDGE

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GEOTECHNICAL INVESTIGATION
DAY 23 PLAN

Initia Project ref: P001538
Figure Number 1538-G29
Revision B

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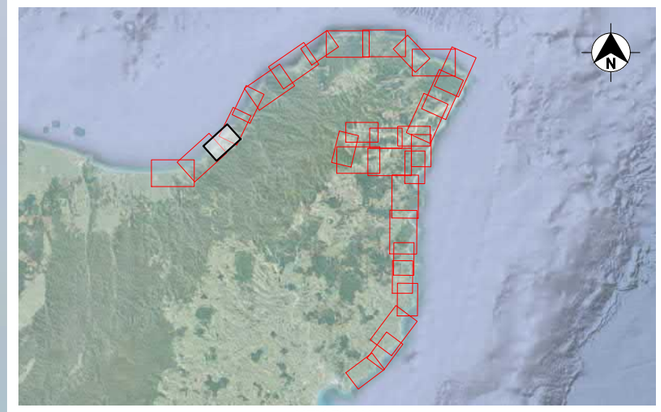

KEY PLAN
SCALE : NTS

NARROW HIGH RISK AREA

NARROW HIGH RISK AREA

DAY 23

TOILET

TOILET

DAY 24

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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 24 PLAN

Initia Project ref: P001538

Figure Number 1538-G30

Revision B

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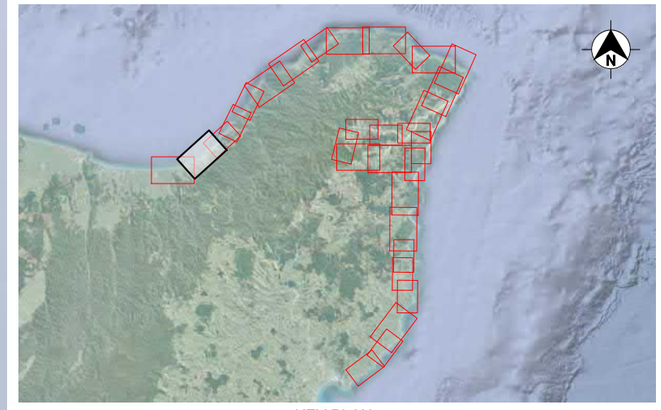

KEY PLAN
SCALE : NTS

DAY 25

TOILET

CLIP ON BRIDGE

TOILET

DAY 24

NOTES
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TE ARA TIPUNA TRAIL - GISBORNE TO OPOTIKI

GEOTECHNICAL INVESTIGATION
DAY 25 PLAN

Initia Project ref: P001538

Figure Number 1538-G31

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- WALKING TRACK
- HORSE TRACK

N

DAY 25

TOILET

DAY 26

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DAY 26 PLAN

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Figure Number 1538-G31

Revision B

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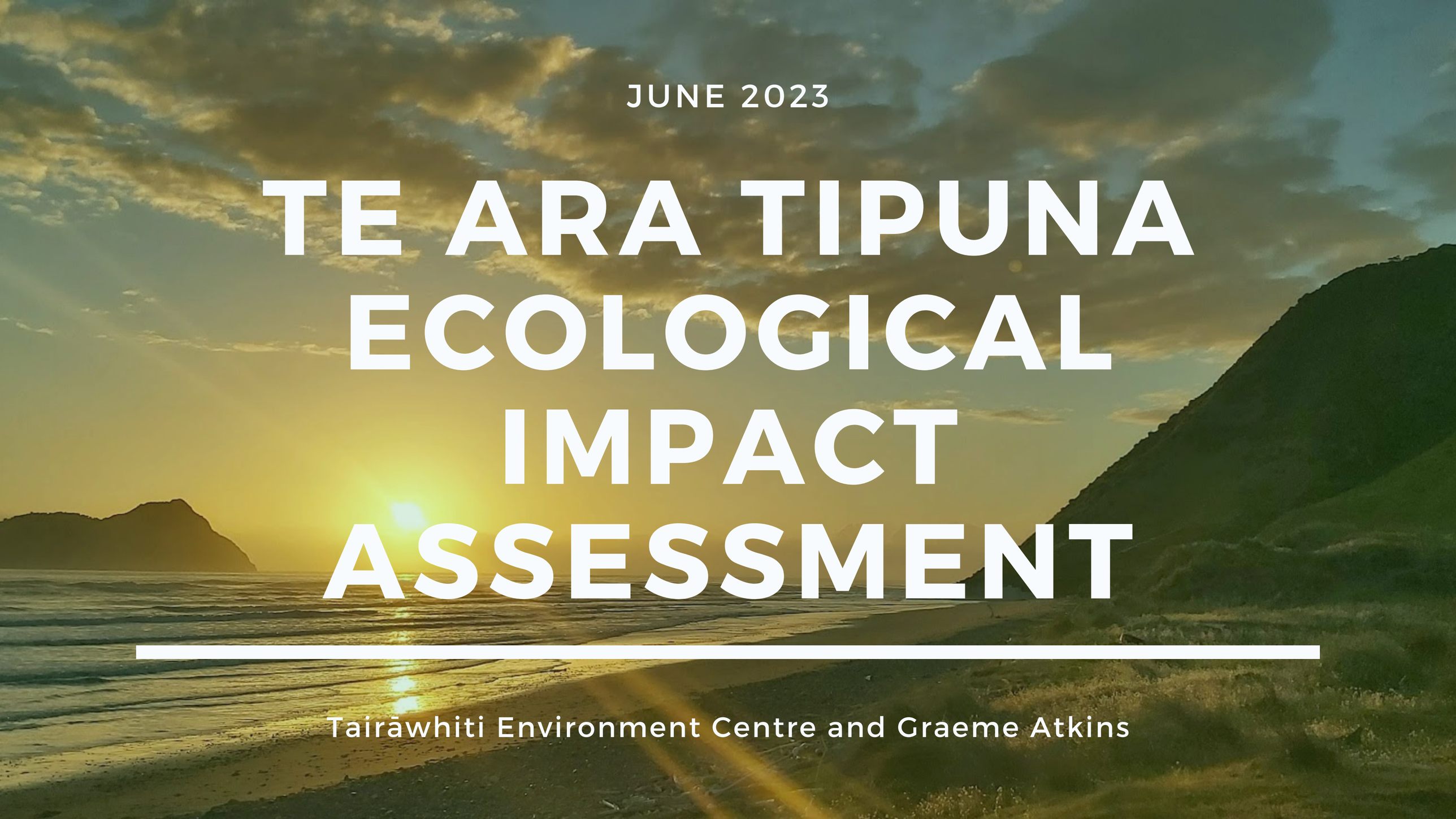
Appendix 12:

Ecological Assessment

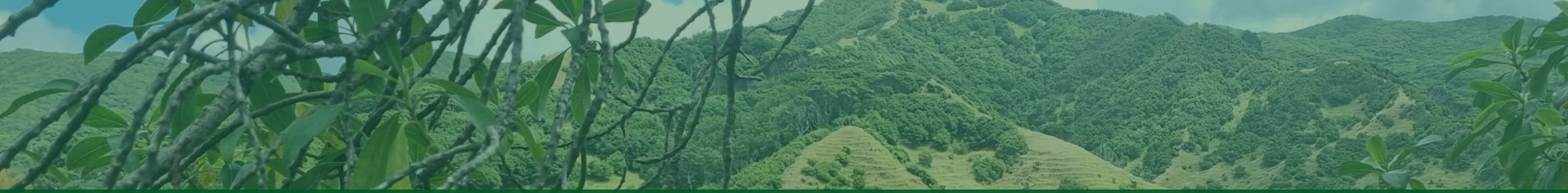


JUNE 2023

TE ARA TIPUNA ECOLOGICAL IMPACT ASSESSMENT

Tairāwhiti Environment Centre and Graeme Atkins

Contents:



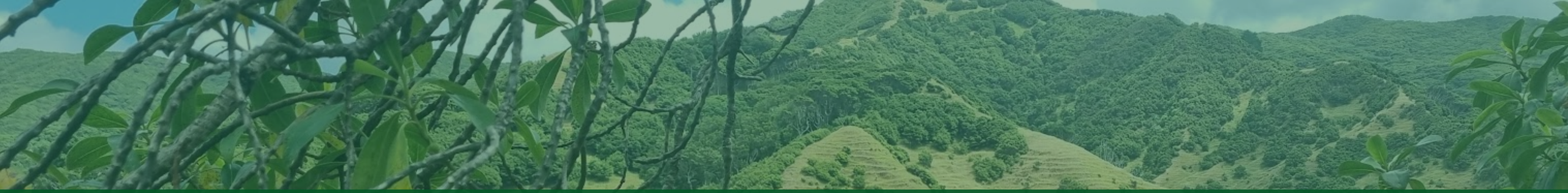
Executive Summary

Te Ara Tipuna proposes to construct over 500kms of tracks between Tūranga and Opotiki which will facilitate the connection of whānau, hapū, community and manuhiri with the whenua, each other, and the traditional practices and knowledge of our tipuna.

Presented in this report is an assessment of the potential impacts on the ecological values of areas of significance that were identified in the planning process. The primary approach to the protection of significant areas has been to avoid them where possible during the planning process. **33** areas of significance were assessed during the creation of the report and **7** have been identified as having potential impacts. The following areas have been identified as having the potential for ecological values to be impacted during the construction of the Ara:

Whangaparaoa Dunefield – Moderate. The proposed alignment borders the dunefield which is an extensive coastal ecosystem that includes native vegetation and a dune wetland. Construction has the potential to impact the dunefield and site assessments will be required to ensure the proposed alignment avoids the area of significance. The impact of sedimentation created during construction adjacent to waterways, wetlands and dune systems will be an important mitigation tool.

Waipare and Nuhiti Q Scenic Area – Moderate. This area is a Ngā Whenua Rāhui Kawenata that is comprised of primary and secondary forest and kanuka regenerating bush areas. Field assessments will be required to ensure that the proposed track alignment avoids significant trees, and identifies any threatened species that may be present to mitigate ecological impacts. Vegetation clearance will be required to construct the track through this area. Consultation with the landowner and Ngā Whenua Rāhui to determine if Te Ara Tipuna aligns with the Kawenata (covenant) on the area will be required.



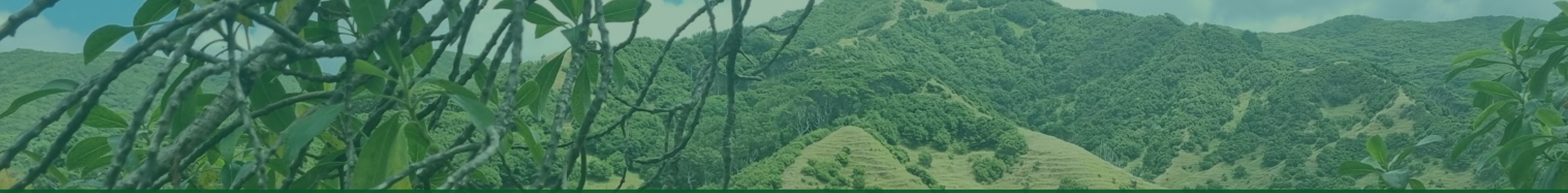
Tauhiti – Moderate. Tauhiti is an area of secondary growth kanuka forest and vegetation clearance will be required to construct the proposed track. Regionally significant plants and threatened species are not known to be present in this area.

Te Koau – High. This site will require the construction of a track through steep terrain and mature forest area. The felling of trees will be required during construction. Site visits and the appropriate management plans will need to be created to ensure that the ecological values of this site are maintained during construction.

Orangoihunui Point - Moderate. Two potential track alignments are proposed and one requires construction within the area of significance. Vegetation clearing will be limited and track material and construction method will likely mitigate impacts on ecological values.

Motu River Mouth - Moderate. This area is assessed as moderate due to the alignment of the track adjacent to the river mouth, the potential for sediment to enter the waterway during construction, and the Very High ecological significance of the area. The proposed track alignment is adjacent to the area.

Hikurangi – Moderate. The track alignment proposed for the Hikurangi Loop utilises existing tracks and paths. The 'High' score is reflective of the 'Very High' ecological assessment of the area of significance.
To manage the impacts on these sites, and any others subsequently identified, management plans will be formulated with steps and procedures to manage the potential impacts on ecological values of the construction, maintenance, and use of the Ara. Once track design is finalised, the management plans will be applied to ensure that effects on ecological values will be managed. At a regional scale the impact of Te Ara Tipuna on areas of ecological significance is likely to be low.



Whangara Beach- Moderate. Whangara Beach is a 1km stretch of duneland -spinifex and marram, and pingao. The area is a nesting site for doterrels. The track alignment proposes a transition from the beach (unformed track) that could potentially impact the dune area. Site assessments will be required during the detailed design phase to ensure that the transition section of the track avoids the dunes.

Oruaiti - Moderate. Oruaiti is an area extending from the rocky shoreline incorporating the beach and adjacent sand dunes. The Waikanapanapa Cliffs are also included in this area. Oruaiti has High Natural Science Factors attributed to the coastal dunes and beach and rocky shoreline. The proposed track transitions from the beach to SH35 and site assessments will be required to inform the detailed design phase to determine the final alignment of the track.

In conclusion, the approach of the Project Team in designing the proposed alignment has greatly served to avoid impacts on ecological values of areas of significance through the construction of Te Ara Tipuna. Where ecological impact is identified, it will be managed by seeking track alignments, construction methods and design, and the implementation of specific management plans to mitigate impacts. This approach will be applied to any further areas of significance that are identified through the ongoing project planning and implementation. The projected impacts on areas of ecological significance across the 500kms of proposed track is assessed as Low due to the mitigations and controls identified by the Project Team.

Project Description

With over 600 kilometres of continuous trails traversing the rohe of Ngati Porou and Te Whanau a Apanui, Te Ara Tipuna will provide vital connection for the communities that stretch from Tūranganui-a-Kiwa to Opotiki. The development of the trails will serve as a catalyst for the rejuvenation of the social, cultural, and economic practices of mana whenua. Transcending beyond the present day, Te Ara Tipuna will also play a crucial role in connecting communities on the Coast to the matauranga and practices of our ancestors.

Weaving through diverse landscapes, and with the infrastructure accessible to walkers, bikers, and horse trekkers, Te Ara Tipuna will complement and enhance the ecological and cultural sites of significance that exist within the rohe. Users of the trail will be imersed in the taiao - uplifting their wairua through exposure to native bush, mountains, river valleys, beaches, and farmland.

Over-and-above the connectivity provided by Te Ara Tipuna, tourism and economic opportunities will be created. Visitors will be drawn to the unique landscapes, and strength of cultural practices, that are found within our rohe. There will be entrepreneurial opportunities to share
local pūrākau, the significance and uniqueness of our environment and daily ways of life; providing a distinct experience for users of the trails whilst also supporting the economic vitality of the region. Te Ara Tipuna will also play a role in supporting the resilience of our region during weather events by providing alternative access for communities isolated by events such as Cyclones Hale and Gabrielle.

BACKGROUND

This Ecological Impact Assessment is a collaborative report between Tairāwhiti Environment Centre and Graeme Atkins.

Tairāwhiti Environment Centre (TEC) is based in Gisborne and is a community Environment Centre which serves the whole Tairāwhiti region. TEC's vision is 'Te Taiao, He Taiora, Te Tairāwhiti – When Nature Thrives, Te Tairāwhiti Thrives' and the strategic priorities of TEC are Education, Waste Minimisation, and Biodiversity. TEC has delivered and supported numerous environmental restoration and education projects across the region during its over 30 years of operations. TEC works collaboratively with Iwi, Gisborne District Council, Department of Conservation, community and volunteer groups, Jobs For Nature Projects and multiple other stakeholders across the region. TEC is currently the umbrella organisation for the 'Eastern Whio Link' and 'Te Whakapae Ururoa' Jobs For Nature Projects and has successfully completed the delivery of the Ministry for the Environment and Department of Conservation funded 'Te Rea' Jobs For Nature project in 2021 that employed 8 teams from Te Araroa to Mahia in environmental restoration.

Graeme Atkins is a Ngāti Porou Taiao Kaimahi and Kaitieki who works for the Department of Conservation and Raukūmara Pae Maunga. Raukūmara Pae Maunga is a joint Ngāti Porou, Te Whānau a Apanui, and Department of Conservation restoration project for the Raukūmara that Graeme was instrumental in establishing. Graeme lives in Tikapa and works closely with Iwi, landowners, scientists, local communities, and schools and he has made an outstanding contribution to the protection of threatened species particular to the Tairāwhiti. Graeme’s expertise in protected and rare plants (such as the white kakabeak / Ngutukaka, the native iris mikoikoi, and dactylanthus) was recognised in 2020 when he was awarded the Department of Conservation’s Loder Cup.

Te Taiao

The underpinning ecological approach for Te Ara Tipuna is to ensure that there is no net loss of ecological values caused by the construction of the Ara. It is envisaged that in the long term, the construction of Te Ara Tipuna will support the increase of ecological values and restoration of the whenua and taiao that it passes through.

Tairāwhiti Environment Centre and Graeme Atkins have been closely involved in the design of the proposed alignment of the Ara to ensure that in the first instance, areas of ecological significance are avoided. This approach has served to greatly limit the potential impact of the Ara on areas of ecological significance, threatened species, and to mitigate the loss of or damage to biodiversity values.

Measures implemented to avoid, mitigate or remedy effects on ecological values include:

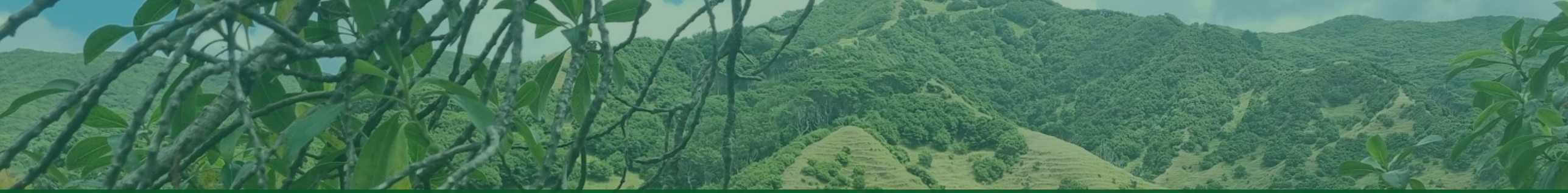
- Design of the proposed route to avoid areas of ecological value where practicable.
- Use of existing tracks, trails and infrastructure
- Construction methods and techniques to mitigate impact on landscape and ecological values such as bird nesting areas, critically threatened species, wetlands, dunefields, mature native forest.
- Where new bridge crossings are required they have been sited away from areas identified as having ecological significance.
- Utilisation of existing tracks and paths to avoid construction on sand dune ecosystems and wetlands.
- The implementation of a Passport system which will contain information and guidelines for track users on specific rules and behaviours to ensure ecological values remain intact, i.e. avoid high tide line during dotterel nesting season.

While the primary focus of this report is to identify areas of ecological significance that have the potential to be impacted by the project it is important to note that Te Ara Tipuna has the potential to be a powerful mechanism for connection to the Taiao for whānau, hapū, community and

Te Ara Tipuna traverses the Gisborne District Council, Opotiki District Council and Bay of Plenty Regional Council's territories.

Te Ara Tipuna crosses 3 Ecological Districts

- Waiapu
- Pukeamaru
- Motu



Scope and Methodology

The Ecological Impact Assessment forms part of a suite of reports prepared for Te Ara Tipuna to support the resource consent application. Due to the scale of the project which will consist of multiple activities in separate locations across the proposed 500km of tracks the primary tool utilised to inform the Ecological Impact Assessment is a desktop analysis of available resources and information including but not limited to:

- Tairāwhiti Resource Management Plan – Gisborne District Council
- Opotiki District Plan – Opotiki District Council
- Bay of Plenty Regional Plan – Bay of Plenty Regional Council
- Department of Conservation 'Conservation Management Strategy, East Coast Conservancy, 1998-2008'

Graeme Atkins, accompanied by Tapuwaekura (a collective of Māori educators who reconnect people to natural environments) conducted a field trip on the proposed Te Ara Tipuna trail between Hinetamatea Marae at Anaura Bay, to Iritekura Marae in Waipiro Bay between the 30th of January and 1st of February 2023. Further field trips were planned to support the ecological assessment and the wider Te Ara Tipuna Project Team but they were unable to proceed due to the impact of Cyclones Hale and Gabrielle on the region.

This assessment has been informed by DOC's Guidelines for Assessing Ecological Values (DOC Assessment Guidelines) (Davis et al. (2016), The DOC 'Guide to Preparing Your Environmental Impact Assessment (EIA); and local expert knowledge. The scale of the proposed project is such that a high level approach to the assessment has been taken.

- The Ecological Impact Assessment identifies and assesses areas of ecological significance identified in the Tairāwhiti Resource Management Plan, Opotiki District Plan, and Bay of Plenty Regional Plan that have the potential to be impacted by the track location and/or construction of Te Ara Tipuna.
- High level assessment of ecosystem types potentially impacted by the construction of the proposed track alignment.

Assignment of values within the Project footprint to species, vegetation and habitats (adapted from EIANZ, 2015)

Value	Species Value Requirements	Vegetation/Habitat Value Requirements
Very High	Important for Nationally Threatened species	Meets most of the ecological significance criteria as set out in relevant statutory policies and plans
High	Important for Nationally At Risk species and may provide less suitable habitat for Nationally Threatened species	Meets some of the ecological significance criterion as set out in relevant statutory policies and plans
Moderate-high	May provide less suitable habitat for Nationally At Risk species	Meets one of the ecological significance criteria as set out in the relevant statutory policies and plans
Moderate	No Nationally Threatened or At Risk species, by habitat for locally uncommon or rare species	Habitat type does not meet ecological criteria as set out in the relevant statutory policies and plans but does provide locally important ecosystem services (e.g. erosion and sediment control, and landscape connectivity)
Low	No Nationally Threatened, At Risk or locally uncommon or rare species	Nationally or locally common habitat supporting no Threatened or At Risk species, and does not provide locally important ecosystem services

Evaluation of the magnitude of unmitigated effects on ecological values based on footprint size, intensity and duration

Magnitude of Effect	Description
Very High	Total loss or major alteration of the existing baseline conditions; Total loss or loss of a very high proportion of the known population or range
High	Considerable loss or alteration of existing baseline conditions; Loss of high proportion of the known population or range
Moderate	Moderate loss or alteration to existing baseline conditions; Loss of a moderate proportion of the known population or range
Low	Minor shift away from existing baseline conditions; Minor effect on the known population or range
Negligible	Very slight change from the existing baseline conditions; Negligible effect on the known population or range

Criteria for describing overall levels of ecological effects as outlined in EIANZ, 2015.

Magnitude of effect	Ecological Value			
	Very High	**High**	**Moderate**	**Low**
Very High	Very High	Very High	High	Moderate
High	Very High	Very High	Moderate	Low
Moderate	Very High	High	Low	Very low
Low	Moderate	Low	Low	Very low
Negligible	Low	Very low	Very low	Very low
No effect	No ecological effect	No ecological effect	No ecological effect	No ecological effect

Tairāwhiti Resource Management Plan

Gisborne District Council

Appendix 3.3 Marine Areas of Significant Conservation Value

Site Name	Site Number	Description	Assessment of effects of track location and construction
Waiomoko River Estuary	05-025	Located at Whangara, site comprises the Waiomoko River Estuary, 10ha estuarine system.	Track alignment avoids area of significance and crosses the Waiomoko River above the estuarine area.
Uawa River Estuary *Also recorded as Tolaga Bay Estuary (WR36) in G-11 Schedule	05-022	Rush sedge estuarine wetland, mudflats with adjacent dunelands	The track alignment utilises the Unformed Legal Road adjacent to the Tolaga Bay Estuary. Potential impact through construction in close proximity to estuary

G-11 Schedule

Area Name	Reference	Status	Description	Assessment of effects of track location and construction
Pouawa River Mouth	WR58	Recommended Area For Protection	Small area of estuary and duneland centred on the mouth of the Pouawa River	Track alignment utilises existing road corridor
Makorori Point Recreation Reserve	WP20	Recreation Reserve	Existing walking tracks through planted native restoration coastal forest	Proposed alignment utilises existing track infrastructure

Whitiwhiti Stream Bush	WR57	Recommended Area For Protection	Fragment of coastal hillslope forest	Proposed track alignment avoids the area
Whangara Beach	WR55	Recommended Area For Protection	1km stretch of duneland – spinifex and marram with one planted area of pingao	Track alignment for construction avoids the dune system. Walking access via beach – no construction of tracks
Waihau Road Wetland	WR49	Recommended Area For Protection	8ha wetland dominated by raupo, manuka, and harakeke	Proposed track alignment avoids the area
Tolaga Bay Estuary	WR36	Recommended Area For Protection	rush sedge estuarine wetland, mudflats and adjacent dunelands	The track alignment utilises the Unformed Legal Road adjacent to the Tolaga Bay Estuary. Potential impact through construction in close proximity to estuary

Kaiaua Bush	WR35	Recommended Area For Protection	Primary mixed coastal forest	The proposed track alignment utilises existing tracks and avoids the area
Raponga Stream	WR34	Recommended Area For Protection	Wetland vegetation at the head of the Raponga Stream	Proposed track alignment utilises existing tracks and avoids the wetland area
Waipare and Nuhiti Q Scenic Reserve	WP7	Protected Natural Area (Scenic Reserve) Ngā Whenua Rāhui Kawenata	Secondary lowland Forest, kanuka and Manuka regrowth	Two potential track alignments are proposed for this area, one requires track construction through the Scenic Reserve
Tauhiti	WR19	Recommended Area For Protection	Secondary growth forest dominated by kanuka	Track alignment follows the Unformed Legal Road and will affect the ecological values of this area

Waimahuru Bay Scenic Reserve	WP5	Protected Natural Area (Scenic Reserve)	Predominantly secondary growth coastal forest with remnants of primary forest remaining in gullies	Track alignment avoids area
Mataahu Wetland	WR16	Regionally significant wetland	Unmodified wetlands on Mataahu Plateau, high water quality	Track alignment avoids wetland
Hikurangi	WR125		Regionally significant indigenous subalpine forest	Track alignment utilises existing track infrastructure
Aupouri Bush No. 2	WR123		Indigenous forest area	Track alignment avoids area

Kuratau	WR8	Recommended Area For Protection	Primary and Secondary indigenous forest	Track alignment avoids area
Rangiata	PR16	Recommended Area For Protection	Lowland Coastal Podocarp Forest – Tawapou	Track alignment altered to avoid area
Hautai	PR19	Recommended Area For Protection	Sand dune system	Track alignment altered to avoid area
Te Whare Wetland	G17	Regionally Significant Water body	Freshwater and Estuarine wetland	Track alignment utilises existing roadway to avoid area

Te Koau	PR1	Recommended Area For Protection	Coastal and lowland to lower-montane and upper-montane vegetation types	Track alignment passes through this area and construction will impact ecological values
Wharekahika Pond and Bush	Pr30 Oxbow	Regionally Significant Water body	Unmodified Oxbow -raupo and Kahikatea	Track alignment follows Wharekahika River and avoids area
Pukehapopo	Nga Whenua Rahui Kawenata	Not identified on District Plan	Protected area adjacent to the Waiomoko River Mouth	Track alignment does not cross the Kawenata area

Opotiki District Plan

Opotiki District Council

Identified areas in Opotiki District: Outstanding Natural Landscapes and IBDAs

Site Name	Reference	Description	Values	Assessment of effects of track location and construction
Whangaparaoa Dunefield, Wetland and Estuary	19	An extensive coastal duneland with intact cover of vegetation, wetlands and river system backing a long open beach.	High Natural Values – highly dynamic natural dune formation	Potential impact on area during construction as the proposed alignment borders the dunefield while transitioning from SH35 to the beach. Actual alignment of track to be determined to avoid impacting dunefield.

Oruaiti Beach, offshore rocks and Waikanapanapa cliff	18	An area extending from the rocky shoreline incorporating the beach and adjacent sand dunes	Moderate to High Natural Science Factors attributed to the coastal dunes and beach and rocky shoreline	Limited construction planned in the area identified. Potential walkway access to transition from beach back to SH35
Raukokore River Mouth	17	distinctive river mouth, lagoon and stoney shore the feature includes the native bush along the river margin and dune area	High Natural Science factors relate to its large scale river mouth and dynamic nature of the river	Planned alignment utilises existing SH35 infrastructure to cross the Raukokore River. The alignment of the track where it leaves diverts from SH35 avoids construction in the area of significance.
Whanarua Bay	16	Narrow rocky shoreline, volcanic rock, Pohutukawa landscape	Moderate to High Natural Science Factors attributed to the small rocky island and shoreline with pockets of native vegetation.	The track alignment proceeds through this area but no track construction is planned. The small rocky island (15) will not be impacted by the project.

Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point	14	A large coastline dominated by a rocky shoreline and native vegetation cover.	Moderate to High Natural science factors this coastline provides a steep coastline and native vegetation.	Two track alignments are proposed for this area to accomodate and separate walkers, cyclists and horses. One avoids the area and will not impact the site. The second proposed track alignment will impact the area and its ecological values.
Motu River Mouth	13	Highly distinctive large river mouth, the Motu River provides a braided river mouth alongside a steep bush clad hill range.	Identified as an area of Very High Natural character at a Regional level, the extent of the feature resides in part Regional Council and part Ōpōtiki District Council jurisdiction. High Natural Science factors relate to its large scale river mouth and native vegetation.	The proposed track alignment utilises the existing SH35 infrastructure and as such construction impact on the area will be limited. A transition from SH35 to the beach is proposed adjacent to the area. Further analysis will need to be completed to finalise track alignment in relation to the area.

Haumiaroa Point Whituare Bay Maraenui Escarpment (Whituare Bay)	10 11 12	collection of individually identified features as one larger feature, this coastline comprises the formation of a coastal escarpment and headlands that extend between Hawai and Haupoto. Comprising steep coastal escarpments clad with native bush cover.	The area is identified as having High Natural Character at a regional level and moderate to high natural science values.	The proposed track alignment utilises the existing SH35 infrastructure through this area. Construction impact on the area will be limited.
Pehitairi Point	9	Steep headland with intact indigenous vegetation cover existing across the entire headland. Whilst not rare it is a distinctive feature that defines the end of an embayment.	Very High Natural character. Moderate to High Natural science factors .	The proposed track alignment does not impact this area.

Haurere Point	8	Steep headland with intact indigenous vegetation cover existing across the entire headland.	Very High Natural character. Moderate to High Natural science factors .	The proposed track alignment does not impact this area
Tirohanga Dunes Conservation Area	Conservation Area - DOC S.25 Stewardship Area	Extensive dune system	Not recorded in District Plan	The Tirohanga Dunes Trail was constructed through the Conservation Area in 2005 and forms part of the Motu Trails (Ngā Haerenga NZ Cycle Trails.) Limited impact on the existing ecological values as the trail will utilise the existing Dune Trail.

Assessment of Impacts and Mitigations

In accordance with criteria for describing overall levels of ecological effects as outlined in EIANZ, 2015.

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Tairāwhiti: Appendix 3.3 Marine Areas of Significant Conservation Value

Site Name	Site Number	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of unmitigated effect on ecological values	Criteria for describing overall levels of ecological effects with mitigations
Waiomoko River Estuary	05-025	High	Low Track alignment avoids estuarine and dune area with at least a 10m buffer.	Low
Uawa River Estuary *Also recorded as Tolaga Bay Estuary (WR36) in G-11 Schedule	05-022	High	Low Track alignment avoids areas of ecological significance , 10m buffer for area of interest has been incorporated in to the design to mitigate impact. Site visit to confirm track alignment.	Low

G-11 Schedule

Area Name	Reference	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of effect on ecological values	Criteria for describing overall levels of ecological effects
Pouawa River Mouth	WR58	High	Low Proposed track alignment utilises existing road corridor - avoids areas of ecological significance (estuarine and dune areas.)	Low
Makorori Point Recreation Reserve	WP20	Moderate	Low Proposed track alignment utilises existing track infrastructure.	Low
Whitiwhiti Stream Bush	WR57	High	Low Proposed track alignment avoids area of ecological significance.	Low

Whangara Beach	WR55	High	Moderate Proposed track alignment transitions from the beach close to the area of significance.	Low With mitigations; Proposed track alignment on beach via unformed track (no construction proposed on dune environment.) Where the proposed track transitions from the beach the dune environment will be avoided and appropriate construction techniques employed. Construction timed to avoid dotterel nesting season if required. Pre construction site visit recommended.
Waihau Road Wetland	WR49	High	Low Proposed track alignment avoids area of significance.	Low

Tolaga Bay Estuary	WR36	High	Low Track alignment avoids areas of ecological significance. .	Low Mitigations: 10m buffer for area of interest has been incorporated in to the design to mitigate impact. Site visit to confirm track alignment
Kaiaua Bush	WR35	High	Low The proposed track alignment utilises existing tracks and avoids the area of significance.	Low
Raponga Stream	WR34	High	Low Proposed track alignment utilises exisiting tracks and avoids wetland area. Site visit prior to construction to confirm 10m wetland buffer.	Low

Waipare and Nuhiti Q Scenic Reserve	WP7	High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low With mitigations: site visit prior to construction to determine exact track location, track location to avoid mature trees, ecological survey recommended to determine species of significance on proposed track, appropriate track constuction techniques employed to avoid impact on secondary growth forest, replanting of ecosourced trees in areas identified as appropriate.
Tauhiti	WR19	High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low The mitigations for Waipare and Nuhiti Q Scenic Reserve will be applied to Tauhiti.

Mataahu Wetland	WR16	High	Low Proposed track alignment avoids area of significance. 10m wetland buffer exceeded.	Low
Hikurangi	WR125	Very High	Low Proposed track alignment utilises exisiting track infrastructure.	Low With mitigations: Due to the ecological significance of this area site visits and ecological surveys are recommended to inform the detailed design phase.
Pukehapopo	Nga Whenua Rahui Kawenata	High	Low Proposed track alignment does not impact the area.	Low

Aupouri Bush No. 2	WR123	Moderate	Low Proposed track alignment avoids area.	Low
Kuratau	WR8	High	Low Proposed track alignment avoids area.	Low
Rangiata	PR16	High	Low Proposed track alignment avoids area.	Low
Hautai	PR19	High	Low Proposed track alignment avoids area.	Low

Te Whare Wetland	G17	High	Low Proposed track alignment utilises exisiting roadway to avoid area.	Low
Te Koau	PR1	Very High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low With mitigations: Site visit informed by local ecological expertise recommended to inform detailed track design, Ecological survey conducted, track design to avoid mature trees and areas of significance identified in survey, appropriate track construction methods employed, replanting with eco-sourced trees in any areas identified required,
Wharekahika Pond and Bush	Pr30 Oxbow	High	Low Proposed track design avoids area	Low

Identified areas in Opotiki District: Outstanding Natural Landscapes and IBDAs

Site Name	Reference	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of effect on ecological values	Criteria for describing overall levels of ecological effects
Whangaparaoa Dunefield, Wetland and Estuary	19 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	High	Moderate The proposed track alignment at the transition from beach to SH35 is adjacent to the dunefield.	Low With mitigations: Site visit and detailed design recomended to ensure that construction does not impact are of significance. 10m buffer for wetland included in design.
Oruaiti Beach, offshore rocks and Waikanapanapa Cliff	18 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Moderate High	Moderate The proposed track alignment transitions from beach to SH35.	Low With mitigations: Site visit and detailed design recomended to ensure construction does not impact area of significance.

Raukokore River Mouth	17 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	High	Low Proposed track alignment utilises road corridor/bridge. Track diversion from SH35 avoids area of significance.	Low
Whanarua Bay	16 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Moderate High	Negligible No track construction planned in this area.	Very Low
Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point	14	Moderate High	Moderate Two track alignments are proposed for this area to accomodate and separate walkers, cyclists and horses. One avoids the area and will not impact the site. The second proposed track alignment will impact the area and its ecological values.	Low With mitigations: Site visits will inform detailed design to limit vegetation clearing, appropriate track material and construction methods will be required to mitigate impacts on ecological values.

Motu River Mouth	13 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Very High	Low Proposed track alignment utilises road and SH35 bridge. Where the track transitions away from SH35 the proposed alignment avoids the area of significance.	Low
Haumiaroa Point Whituare Bay Maraenui Escarpment (Whituare Bay)	10/11/12	High	Low Proposed track alignment utilises exisitng road corridor (SH35)	Low
Pehitairi Point	9	Very High	Negligible Proposed track alignment does not impact the area.	Low
Haurere Point	8	Very High	Low Proposed track alignment does not impact the area.	Low
Tirohanga Dunes Conservation Area	Conservation Area - DOC S.25 Stewardship Area, 13.3.2.5 Indigenous Vegetation Disturbance in IBDA	High	Low Proposed track utilises existing track infrastructure.	Low

AREAS OF SIGNIFICANCE NOT IDENTIFIED IN DISTRICT PLANS

TE TAPUWAE O RONGOKAKO MARINE RESERVE – POUAWA

2450ha of 8 marine habitat types including inshore reefs, rocky inter-tidal platforms, and sediment flats.

- Established in 1999 by Ngāti Konohi and Department of Conservation
- Nesting site for NZ Dotterels
- The proposed track alignment utilises the existing road way where it approaches the Marine Reserve then transitions to adjoining farmland without disturbing the Reserve.

NGĀ WHENUA RĀHUI KAWENATA

- 3 Ngā Whenua Rāhui Kawenata that are potentially impacted by the construction of Te Ara Tipuna have been identified and included within the Tairāwhiti Resource Management Plan assessments; Anaura, Nuhiti Q, and Pukehapopo.
- No Ngā Whenua Rāhui Kawenata that could be affected by Te Ara Tipuna have been identified within the Opotiki District Council area.

QEII NATIONAL TRUST

No QEII Covenanted areas that have the potential to be impacted by the construction of Te Ara Tipuna have been identified.

Wetlands

Wetlands as defined in the Tairāwhiti Resource Management Plan includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. Wetland ‘margins’ shall be the dry land area associated with a wetland, to the extent that the predominant vegetation is adapted to wet conditions.

The Opotiki District Plan defines wetlands as Includes permanently or intermittently wet areas, shallow water and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. For the avoidance of doubt, the term “wetland’ applies to water bodies and intermittently wet areas.

With regard to the National Environmental Standards for Freshwater as it relate to wetlands, The constructio of Te Ara Tipuna will not:

- Clear vegetation within, or within a 10-metre setback of, a natural wetland
- Undertake earthworks or land disturbance within, or within a 10-metre setback of, a natural wetland (or 100m if it is likely that the works will result in any drainage of a natural wetland)

Undertake the taking, use, damming, diversion, or discharge of water within, or within a 100-metre setback of, a natural wetland

Wetlands identified within areas of significance assessed within this report have been avoided through the track planning and design stage. The proposed track alignment avoids areas identified as wetlands and provides for a minimum 10m buffer zone. There will be no discharge to wetlands.

Where wetlands (that have not been included within this report) as defined above are identified during the detail design phase (the recommended approach will be to avoid through alteration of the track alignment , creation of a 10m buffer, and the employment of appropriate construction methods for such areas; ie sediment control. Ecolgocial assessments by an appropriate expert may be beneficial to determine boundaries of wetlands.

INDIGENOUS VEGETATION OPOTIKI DISTRICT COUNCIL

This report identifies that the proposed track alignment has the potential to impact the Whangaparaoa Dunefield, Oruaiti Beach, and Orangoihunui Point. Specific recommendations for mitigations are made within the report and site visits will be required during the detailed design phase to enusre all effects are minor or less. The proposed alignment of the track avoids significant areas as the first tool to mitigate impact.

The proposed track alignment may impact areas identified as IDBA A and IDBA B separate to the areas of significance and Outstanding Natural Features assessed within this report. These areas will be identified during the detailed design phase and the effects of the location and track construction on these areas will be assessed during this stage. Mitigations will be implemented to ensure that requirements and conditions are adhered to.

Appendix 13:

Landscape and Visual Assessment

Te Ara Tipuna.

Assessment Of
Landscape and Visual Effects.

Final – July 2023

Papatea Bay – Opotiki District

Isthmus.

Client Name:	HRM associates
Project Name:	**Te Ara Tipuna**
Document Name:	**Assessment of Landscape and Visual Effects**
Document Status:	**Final**
Date:	**July 2023**
IGL Reference:	**4826/ C2**
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CONTENTS

APPENDICES

1. EXECUTIVE SUMMARY

1.1 Isthmus Group has completed a high-level Assessment of Landscape and Visual Effects (LVA) for the concept stage design of Te Ara Tipuna (the Project, Proposal, path). Te Ara Tipuna is a proposed path of approximately 500kms in length for walkers, cyclists, and horse riders between Gisborne and Opotiki. The LVA considers the effects on landscape, including outstanding natural features and landscapes (ONFL - as identified on planning maps), visual amenity and natural character.

1.2 As set out in the 2021 Proposal Document for Te Ara Tipuna,[1] the aim of the Project is:

"to restore connectivity and momentum in the daily life of those who live and work in-rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday kaitiaki of the ara and the people who traverse them, locals, and manuhiri alike."

1.3 Te Ara Tipuna is proposed for development mostly within the coastal environment. It will pass through dramatic, varied, and high-value landscapes and will provide connections into local communities along the route. There is an intention to include overnight stays at marae as part of the experience, as is being discussed with iwi and hapu.

1.4 This high-level LVA has been conducted alongside development of a Landscape Management Plan (LMP), appended to this report. The LMP supports the effects assessment through the methods it sets out as assumed measures to avoid, remedy and mitigate for adverse effects within the concept design. Further recommendations are also outlined in the LMP for future stages, to further reduce adverse effects and build in landscape benefits. The LVA includes an assumption that the LMP will form part of the consent package.

1.5 Te Ara Tipuna comprises five possible development Stages – as set out in the 2021 Te Ara Tipuna Proposal Document. The LVA is structured around these stages – with consideration of existing values and effects in each Stage in relation to the existing Concept Design – including the proposed route and new bridge and toilet/shelter (google earth kml file lodged) and Te Ara Tipuna Conceptual Document, with typical path type cross sections and plans.

[1] Te Ara Ti puna, Proposal Document 2021, pg. 2. Refer to the AEE for the Proposal Document 2021.

1.6 The LVA considers the high-level positive and adverse landscape and visual amenity effects for each Stage of Te Ara Tipuna assuming these will relate to a corridor (50m)[2] and the detail of the built works and agreed mitigation measures at consent 'design freeze' as developed through the Project shaping stages with the wider team of discipline specialists.

The Existing Environment - Summary

1.7 The existing environment of Te Ara Tipuna is analysed through the baseline evaluation appended to this report (**Appendix C**). This has been informed by desk top analysis and local knowledge from trips around the East Coast on SH35 and to many of the coastal communities intended as destinations. The evaluation considers the landscape catchments and sequence of destinations within each development stage, and the existing features and patterns that contribute to landscape values including:

a. identified ONFL within the Gisborne and Opotiki Districts with reference to scheduled values.
b. natural and built/community landscape characteristics including features that contribute to natural character (as natural character includes biophysical and perceptual matters.
c. the visual amenity of the landscapes of Te Ara Tipuna relating to existing views and the likely viewing audiences of the path.
d. planning overlays that are relevant in each district and as they address the biophysical, perceptual, and shared and recognised components of landscape (refer to definitions within the Appendices to this report).

Findings on Effects – Summary

1.8 The effects of the Project are considered in two parts with a focus on measures to avoid adverse effects and the Stage specific requirements for mitigation (complementing the general principles set out in the LMP).

1.9 The first part of the assessment addresses the components of the concept design (the Conceptual Document) with findings addressing the use of path segregation, roading type elements, path types appropriate in ONFL and bridge structures.

[2] The final footprint of the alignment and property owner easement is likely to be no more than 20m in width. However, the effects assessment takes a wider, 50m, 'corridor' approach, to ensure greater certainty. Given the concept stage of the design, it is understood that the final centreline of the path may need to vary slightly from that shown in the consent stage, as there will be adjustments made in response to site work and landowner feedback.

1.10 The second part of the assessment considers each Stage in turn including where further investigation is required to confirm the alignment and path types, and provides a summative, high-level assessment of effects for ONFL, the natural and built landscape, visual amenity, and natural character.

1.11 Overall, the findings of this assessment are that the effects of Te Ara Tipuna on ONFL, landscape, visual amenity, and natural character will be appropriate. The Project shaping stages, including iterative review and feedback on landscape matters, have confirmed a concept alignment and options for path types and new structures that bring a focus on avoiding adverse effects and practicable mitigation measures, as included in the LMP. Landscape matters to resolve in the next stages of the design relate to both detailed alignment and response to site, to further reduce adverse effects and provide for greater benefits.

2. INTRODUCTION

2.1 This report provides an assessment of Te Ara Tipuna (the Project/Proposal/path) effects on landscape, visual amenity, and natural character. It considers potential adverse and positive effects, including on the values of areas identified as outstanding natural features and landscapes (ONFL).

2.2 The effects will arise from both construction (temporary) and operational (permanent) use.

Proposal Overview

2.3 The Proposal is to provide for a continuous walking, cycling and horse-riding path to (and from) Makorori headland3 in the south to Opotiki4 over approximately 500km in the Gisborne and Opotiki districts. Most sections of the route will be shared by all users, and generally walkers and horse riders will follow the same path.

2.4 The overarching purpose of Te Ara Tipuna, as set out in the Proposal Document 20215 is to:

Create the conditions in which Ngati Porou and Te Whanau-a-Apanui can regenerate the cultural wealth of a lively, healthy society of connected communities, culturally fluent and capable, enterprising, and economically active, environmental protectors, and sustainers, in revitalised whanau, hapu, and iwi relationships.

2.5 The operating principles6 which have guided the design and are relevant to landscape matters7 are:

To facilitate everyday rangatiratanga, every day – individuals and collectives are independent and self-determining, making positive decisions for themselves about themselves, with responsibility for the consequences.

To support practical expressions of wellness, wellbeing, and kindness.

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[3] The horse and cycle path will start at the northern base of the headland - from the existing freedom camping- carpark site.
[4] As per the 2021 Proposal document, this report only uses tout (macrons) for names of organisations, otherwise they are not used in accordance with Ngati Porou practice.
[5] Te Ara Tipuna Proposal Document 2021, pg 11
[6] Te Ara Tipuna Proposal Document 2021, pg 11
[7] Best practice guidance considers three interrelated components of landscape and values derived from – the biophysical (natural science), sensory (perceptual, including through all the senses) and the shared and recognised (due to associations, ongoing connections). Refer to landscape definitions in Appendix A to this report.

To reinforce connection and contribution through whakapapa, and activity between and amongst communities.

To honour Te Tiriti o Waitangi in practical, local, and relationship-based ways.

2.6 Te Ara Tipuna follows a varied route, generally close to the coast and within the coastal environment (as identified on Gisborne Regional Council, Opotiki District Council and Bay of Plenty Regional Council planning maps). In many locations it is aligned with existing recreation tracks, beach areas above high tide, farm tracks and unformed legal (paper) roads In other areas it will be located alongside SH35 and formed local roads. In places the route crosses through private land, as negotiated/to be negotiated with landowners.

2.7 The process of confirming the concept alignment has followed an iterative process with the wider Project team of effects specialists. This included consideration of the potential resilience benefits of the path as an alternative ATV (all-terrain vehicle) connection to and from Tokomaru Bay and Ruatoria, following successive cyclones and flooding events which have closed SH35 and local roads, for weeks on end.

2.8 The consent design is provided at a high level, to allow for refinements in the next stages in response to specific site/context issues, and to provide for further input to the design as it progresses from iwi, hapu, landowners, and the wider Te Ara Tipuna community.

2.9 While the detailed spatial arrangement of the path types proposed (as included in the Conceptual Document – cross sections) will be confirmed through further investigation the standard path will be approximately 4.5m wide and formed over natural ground, to minimise earthworks and ongoing maintenance requirements. The Construction Management Plan (CMP)8 will set out a site-responsive approach to confirm appropriate path types and the application of those in future design stages (i.e., it will confirm/provide a spatial strategy), and this (site responsiveness) is supported by the principles and methods set out in the LMP.

2.10 As included in the concept design, and assessed in the LVA, there are new bridges and 'clip-ons' to existing bridges and new toilet/shelter facilities.

[8] The CMP is under development at the time of writing this report. Through team discussions, it has been confirmed that the CMP will require consideration of *functional need* as a first principle (during more detailed design stages), for inclusion of boardwalks, gravel and stripped/compacted path types and vertical path segregators. This responsive approach is to minimise adverse landscape, visual amenity, and natural character effects, particularly in sensitive areas such as ONFL.

2.11 Features to be confirmed (which are not included in the concept design and are not assessed in this report) may include vertical timber or concrete clad retaining walls as needed, additional car parking facilities, fencing and bollards, lighting and seating and other structures to be confirmed in a future overall narrative and identity strategy and to progress mahi toi and wayfinding and interpretation elements.9 The LMP provides high level guidance recommendations relating to these elements.

2.12 A detailed description of the Project is included in the AEE report. This report focuses on those Project components most likely to generate landscape, visual amenity and/or natural character effects, as summarised in the Assessment of Effects sections of this report.

Proposed staging

2.13 The Proposal includes five Stages10, as set out in the AEE. The Stages are (from south to north):

a. Tairawhiti, Makorori Headland to Tolaga Bay, Uawa
b. Tolaga Bay to Waipiro Bay
c. Waipiro Bay to East Cape
d. East Cape to Te Kaha
e. Te Kaha to Opotiki

2.14 The five Stages have been used as a framework for this LVA – refer to Assessment Approach, below.

3. ASSESMENT APPROACH AND METHODOLOGY

Scope

Baseline Evaluation - Assumptions

3.1 Given the scale and stage of the Project, this assessment has not included a comprehensive gap analysis of planning document landscape values. However, additional values, considered relevant to the LVA and best practice assessment, have been drawn from site observations

[9] Further resource consents will likely be needed for such components.
[10] These relate to possible staging for construction. The Stages set out may alter depending on funding.

and desk-top study, including the observations made by other specialists on the Project, and as informed by the project planning team.[11]

3.2 This assessment does not include a review of the ONFL identified in regional and district plans and, or their documented values. This is important to note as ONFL identified in the Gisborne and Opotiki region were completed some time ago (with updates being considered in current Resource Management Plan reviews and noting the TRMP does not identify ONFL outside the coastal environment), using a best practice methodology that has since been further developed. Notably, the values addressed in existing schedules would now be considered insufficient, as they focus on what can be seen, views of a landscape and generic or limited concepts of what contributes to aesthetic value or amenity. Rather than being inaccurate, the existing schedules miss the full consideration of the natural science, sensory and shared and recognised factors that contribute to landscape values. That being said, this assessment considers the ONFL identified by GDC and ODC are valid for the purpose of this assessment; and would be identified, generally, in the same locations through a comprehensive review.

3.3 Similarly, a review and gap analysis of existing natural character values (refer to the definitions in Appendix A) has not been included in the assessment, due to the scale of the Project. In the Opotiki District the existing natural character evaluation, as included in the Bay of Plenty Regional Council (BOPRC) planning maps, has been considered along with first principles, a best practice approach to understanding factors that contribute to, and can adversely effect, natural character, as described further in the Assessment of Effects section of the report below. The Tairawhiti Regional Management Pan (TRMP) does not rate the natural character of the coastal environment or identify areas of outstanding or high natural character. For the purpose of this assessment and based on site work, it is assumed that the natural character of ONFL areas is at least moderate-high, the majority areas along the route have at least moderate natural character with minor areas, adjacent to settlements having low-moderate natural character (on a seven-point scale).

3.4 For both regions the best practice principles of Te Tangi a Te Manu12 and the direction of NZCPS policies will apply alongside planning matters. That is, the assessment considers the

[11] This has included "hot spot' workshops and reporting by other specialists to identify likely areas of significance and concern (in February and May 2023) As outlined in Appendix A, landscape definitions and the New Zealand institute of Architects Assessment Guidance, Te Tangi a Te Manu, landscape is an integrating concept and as such needs to be informed by a range of specialist areas addressing biophysical, perceptual and shared and recognised matters (ecology, geology, hazards, archaeology, cultural, social, and recreation).
[12] Section 9.37 of Te Tangi a Te Manu addresses the assessment of effects on natural character.

potential of the Project to impact both biophysical and sensory matters that contribute to the specific natural character in each area along Te Ara Tipuna and whether, or not, the works will have, on balance, and inclusive of agreed mitigation, adverse or positive effects that are appropriate in that context.

Project footprint

3.5 With reference to the Conceptual Document, the direct effects of the works associated with Te Ara Tipuna are likely to be limited to less than a 20m width including all earthworks and vegetation removal. In some areas, where there is limited need for disturbance, the corridor footprint (width) of the Project could be generally 4.5m - the width of the standard path. For the purposes of this assessment, however, it is assumed that final route is to be confirmed within a 50m-wide corridor. That is: 25m either side of the centre line. As is appropriate to this stage of the Project, this 50m reflects the need to provide a measure of effects certainty and flexibility, including where landowner easement agreements are yet to be confirmed and their knowledge will help confirm the final alignment. It is understood that the final footprint pf the Path (including all earthworks and vegetation removal) will be less than 20m.

Project components

3.6 In line with the brief provided and the Project stage, the assessment of effects focuses on the proposed alignment and built works. (Refer also to Approach/High-level assessment, below.)

3.7 The LVA does not include consideration of effects arising from increased use of the area. Potential effects associated with cyclists, walkers, and horse riders, and how their numbers might vary over time, or on different sections of the path, are addressed in the Recreation Assessment Report and, as they relate to the varied communities, in the Social Impact Report. These matters (including consideration of privacy -not assessed in this report) will be a focus in future stages, through ongoing engagement and formal agreements.

3.8 Effects on visual amenity for individual properties have not been assessed in the LVA given the stage and extent of the Project. However, effects for individual dwellings have been considered at a high level within Project shaping – and further commentary is provided on this within the body of the assessment.)

Construction (temporary) effects

3.9 These will be a particular consideration as Te Ara Tipuna is proposed to be located within the coastal environment13 over much of the proposed route (as identified on planning maps), and/or in proximity to wetlands, rivers and streams and their margins.

3.10 The LVA considers construction effects at a high-level, as appropriate to the stage of the Project (and with the CMP under development at the time of writing). Construction (temporary) effects have been considered at a broadscale as part of the project shaping – and commentary is provided on this within the body of the effects assessment. [14]

Approach

Definitions

3.11 This LVA uses definitions of landscape, visual amenity and natural character as provided by Te Tangi a te Manu.[15] The definitions are set out in **Appendix A** to this report along with further explanations.

High level assessment

3.12 The overall approach for assessment has been driven by the scale and stage of the Project. Baseline evaluation and assessment of effects is provided at a high level, as appropriate to the Project's 500km length, and the Proposal's focus at this stage on providing an appropriate alignment, appropriate "typical" design guidance for key built elements (using "typical" cross-sections); and management of potential adverse effects through a suite of management plans (assumed to be conditioned to any consent granted).

3.13 The LVA does not provide ratings of effects against the NZILA 7-point rating scale. Such an assessment would require sufficiently detailed plans showing the spatial arrangement of path types and the general nature and extent of earthworks and vegetation removal in each Stage.

3.14 Similarly, it follows that a detailed assessment against statutory planning provisions is not included in this high-level LVA. Relevant planning provisions have been considered as part of the Project's context for development of the consent design. A summary of key landscape-related provisions is included below in the section headed Existing Environment. These have

[13] Where the New Zealand Coastal Policy Statement, NZCPS (2010) policies will apply.
[14] Refer to Approach, below, for a description of what this assessment considers a "temporary" (construction) effect.
[15] The NZILA landscape assessment guidelines.

been summarised from a more detailed description of landscape-related provisions provided by the planning team and have informed the Project shaping (refer below).

3.15 In summary, the approach and assessment methodology used in this LVA has been developed as appropriate to specifics of this Project stage and its context. This is in line with Te Tangi a te Manu, the NZILA guideline for landscape assessment, which recognises the need for such appropriate adaptation, rather than the application of a standard methodology.

Project shaping and future design guidance

3.16 A key part of the approach for the LVA has been to contribute to the concept design through Project shaping and development (in parallel) of the LMP. This has occurred with input from other specialists on the Project team, such as cultural specialists and ecologists – who have provided input folding into/relevant to landscape matters.

3.17 The Project shaping, using integrated design and assessment as the LVA has progressed, has sought to avoid inappropriate adverse landscape effects as a first principle. In the first instance this has meant a focus on iterations to confirm the location/alignment of the Te Ara Tipuna, with adjustments made to the proposed route following the workshops and other inputs (such as mapping of "hotspots" i.e., locations and areas to avoid).

3.18 Project shaping has also included input to the Project description and typical path component details (the Project cross-sections), and to the CMP.[16]

3.19 The LMP has been developed alongside the workshops and other shaping inputs to set out design methods for future more detailed design stages, to guide design and provide certainty (through its conditioning), that appropriate landscape outcomes will be achieved. The LMP will support the site-responsive approach agreed for the CMP, for spatial strategy in the detailed design stages.[17]

3.20 The LMP also includes recommendations for further investigations post consent to further avoid adverse effects and build in positive effects.

[16] Refer below to The Proposal for further details on the development of the CMP.
[17] The CMP has not been reviewed; however, a site-responsive approach has been discussed and agreed with the Project team and as such is assumed for this report. Refer below to The Proposal for further details on the approach agreed for the CMP.

Landscape catchments

3.21 The LVA has used the Project Stages (refer to Introduction above) as a framework for the baseline evaluation and effects assessment. While the Stages relate to a possible construction sequence, these also have a landscape logic. For example, the first Stage assessed considers Makorori Headland to the Cooks Landing existing track end at Tolaga.

3.22 The Proposal defines potential walking days along the length of Te Ara Tipuna - generally aligned with possible accommodation options and with times varying between days. Reference to defined Days has not been included in the LVA because start/end points may be subject to further refinement as the Project progresses, including through ongoing input from the community and through recommendations from other disciplines and assessment reports.

Temporary (construction) effects

3.23 This assessment considers that an effect will be temporary where it does not extend beyond the construction period or is appropriately mitigated at the end of construction.

Methodology/Tasks

3.24 The methodology used to consider potential adverse and positive effects on landscape, visual amenity and construction effects of the proposal has followed best practice guidance Te Tangi A Te Manu provided by Tuia Pito Ora, the New Zealand Institute of Landscape Architects (NZILA).[18] This has included the following tasks:

a. review of the proposal plans and documents, including relevant planning provisions (as provided by the Proposal's planning team).
b. high-level evaluation of the existing environment. This has provided a description of landscape character and factors contributing to existing landscape values (refer to **Appendix C**) as a baseline evaluation from which to assess the potential adverse and positive effects of the Project and whether they are appropriate in that context. The baseline evaluation has comprised desk-top analysis of existing information (statutory planning documents and maps), supplemented by local knowledge and site visits, and assisted by context photos provided to the Project team, including drone shots taken in January 2023. Refer also to Scope, above, in relation to the baseline evaluation

[18] Te Tangi a te Manu, Aotearoa New Zealand Landscape Assessment Guidelines; Tuia Pito Ora New Zealand Institute of Landscape Architects (NZILA); April 2021. The NZILA recommended methodology recognises the need for adaptation of methodology in each project, to suit the site, context, and proposal (including stage of the proposal) being considered.

completed.

c. outline of the proposal and identification of relevant matters/components likely to generate, landscape and visual amenity and natural character effects.
d. desk-top evaluation of the proposal's visual catchment, considering existing visual "access" – views to/from the proposed path.
e. project shaping through workshops, meetings, and adjustments to design from "hotspots" analysis.
f. development of an LMP in parallel with the project shaping and assessment work – including assumed mitigation measures and further recommendations for future stages (Refer to Appendix D).
g. assessment of residual effects – that is, effects remaining after adjustments to the proposal through Project shaping to confirm the concept design and the assumed mitigation measures, as set out in the LMP (assumed as conditioned).
h. conclusions.

4. EXISTING ENVIRONMENT

Values – Site and Context

4.1 A baseline evaluation has been completed and this is provided at **Appendix C** to this report. The evaluation has referenced relevant statutory planning documents, supplemented by local knowledge and site observations and desk-top study, including photos along the proposed route provided by the Project team.

4.2 The purpose of the baseline evaluation is to understand the existing characteristics of the area that contribute landscape values, as the 'base' from which the impacts of the proposal can be assessed. The analysis is set out by Stage in tabulated form under the headings ONFL, natural landscape, built/community landscape, visual amenity, and planning overlays. (Refer above to Approach. The five Proposal Stages are used as a framework for this LVA.)

Planning Framework

4.3 The planning framework for the Proposal includes relevant Section 6 matters of the Resource Management Act (RMA) and the New Zealand Coastal Policy Statement (NZCPS 2010) as included in **Appendix B.**

4.4 Further, the Gisborne District/Regional Plans, the Opotiki District Plan, and the Bay of Plenty Regional Plan, form part of the planning context (or existing environment) for the Proposal.

4.5 The baseline evaluation identifies landscape and environmental *overlays* in the relevant planning documents as included **Appendix C.**

4.6 A summary of more detailed planning provisions applying (at a regional and district planning scale) is set out at the end of **Appendix B**. This comprises a summary of more detailed information provided by the Proposal planning team and relates to standards and activity status for vegetation removal, land disturbance and the inclusion of structures inside the various landscape planning overlays and/or zones in each region/district (such as ONFL, coastal environment, coastal zoning, riparian areas, and in formed/unformed roads).

5. THE PROPOSAL [19]

5.1 The assessment of effects is focused on the proposed alignment and built works of the Proposal, as contained in the Project description, and the plans and cross-sections attached to the AEE. The key matters considered in the assessment relate to the:

Design components

5.2 At the concept stage of the Project, as included in the Conceptual Document, the components that can be assessed, and where mitigation is proposed within the LMP, include the:

a. proposed range of path types.
b. road crossings, as illustrated in the typical cross sections.

5.3 Other design components will have a bearing on landscape effects and are included in the LMP guidance as future stage recommendations.

Location - alignment of Te Ara Tipuna.

5.4 The alignment of the design concept has been determined through the iterative Project-shaping process (through workshops and meetings including the wider project team) to avoid areas where earthworks and/or indigenous vegetation removal would be difficult to remedy or mitigate, and, or would be a dominant feature in public views. Using the Project path centre line overlayed on planning maps and aerial photographs, the path has been located (as possible) to:

a. avoid sensitive environments such as coastal escarpments, areas with indigenous vegetation and dune and wetland environments (including those scheduled in planning

[19] Refer also to the detailed Description of the Proposal provided in the AEE.

documents and identified on high-resolution desktop study).

b. avoid road reserves where the carriageway is confined and there are narrow shoulders or limited open and relatively level areas within the road reserve.
c. avoid the use of unformed legal roads where existing tracks exist and where they are near existing formed roads, and their use would result in indigenous vegetation removal and, or additional cut batters near those already apparent on the legal road[20] .
d. use existing tracks as a preference outside of the road reserve (such as farm tracks - identified on high-resolution photographs and to be confirmed with landowners) as they often follow the natural contours and may not require any other works, other than sightline wayfinding markers.
e. provide for logical egress in and out of existing communities using existing cadastral patterns – to avoid oblique connections, on and off a road reserve alignment particularly near spurs (tight corners for vehicles).

Landscape Management Plan (LMP)

5.5 As described above the LMP includes both matters assumed as mitigation and assessed in this LVA, and recommendations for future stages (not assessed). Refer to **Appendix C**.

Construction Management Plan (CMP)

5.6 The CMP is being developed at the time of writing this report. Through discussions with the Proposal team, it has been confirmed/agreed that the CMP will include requirements for a site-responsive approach in the ongoing, more detailed design stages of the Project, (post consent) to avoid additional/inappropriate adverse effects. This will be provided for further refinement of the design typologies and appropriate "matching "of path types to site and context along the length of the route, using a "first principles" approach - such as to consider functional need and the development of a path type strategy to support an overall narrative and identity for Te Ara Tipuna:

a. vertical path segregators will be used where there is a clear and definite need to ensure clear cues for movement and safety, rather than as a standard.
b. the "standard" path type will generally be used where there is no functional need for a boardwalk or gravel surface. For example, the functional need for a boardwalk may relate to maintenance and protection of wetland hydrology patterns or the need to uplift and recognise the mana of a site or community. A gravel surface may be required due to

[20] For the most part this relates to the Opotiki District, where SH35 is confined along a more vegetated coast.

site specific ground conditions and/or resilience objectives; for example, as proposed from Tokomaru Bay to Ruatoria[21]

c. compacting will be used only as 'as needed', in response to ground conditions and to ensure clear cues for movement and safety, rather than as a standard.

5.7 The site-responsive approach in the CMP (as outlined above) can be thought of as a 'spatial strategy' for the use of path types in the more detailed design stages and should be supported by the development a set of overarching 'principles' (based on principles such as functional need and relevance to overall narrative and identity).

5.8 Matters to be addressed through the CMP (as above) are further detailed and explained through the body of this assessment of effects.

6. LANDSCAPE & VISUAL AMENITY EFFECTS - SCOPE

6.1 Te Ara Tipuna will establish a near continuous walking, cycling and horse-riding path from Makorori headland[22] to Opotiki, through 2 regions. The path, which is sometimes shared and sometimes single use, is generally within the coastal environment and often near the water's edge and passes through or is near coastal and rural communities. While the Project shaping stage (see above) has focused on the opportunities to avoid and ensure there are measures embedded into the concept that will mitigate, there will be some residual adverse effects on natural and built/community components of landscape and their combined visual amenity, including landscapes identified as **ONFL.** Such effects relate to both construction challenges and the Project's interface with remote areas and existing communities in coastal and rural environments, including:

a. the constraints posed on horizontal and vertical alignment, to achieve a continuous route with connections to remote communities through highly variable terrain and areas with both Geotech and natural hazards.

b. because of a., the Project's varying footprint including areas requiring earthworks (cut and fill batters and the potential for retaining walls) to establish a standard 4.5m width path for all users and, with that, the potential for indigenous vegetation removal.

c. the proximity of the earthworks and vegetation removal (independent of the scale) to highly sensitive environments including wetland, streams and rivers, dune habitats, including the potential for alternative or ad hoc routes at, for example high tide.

[21] Principles for use of path-types would be set as part of the spatial strategy to be developed.
[22] Cyclists and horse riders will start the journey from the northern side of the Makorori headland, from the existing freedom camping carpark

d. the potential for severance caused by the path's interaction with existing patterns of movement and settlement and sites that are sensitive – related to archaeological, historical, and contemporary community connections and associations.
e. the adverse visual effects associated with the path earthworks, which will take time to rehabilitate.
f. any structures including any required retaining walls, bridges, and those needed to establish carparking, toilet facilities and safety signage and barriers.

6.2 Potential positive effects for landscape and visual amenity, that can be evaluated with a degree of certainty[23] at this stage of the Project relate to:

a. existing earth worked areas to be rehabilitated because of the Project.
b. stream, and river margins that are to be planted that are currently in pasture, exotic weeds.
c. existing areas of indigenous vegetation that could be enhanced, including through buffer planting to their edges.
d. improvements made to existing paths and structures or the removal and, or replacement of structures in poor condition.
e. improved access and connectivity to the coastal environment and other valued destinations, for both local communities and visitors.
f. enhanced visual amenity in particular locations due to the standard/typical details and planting proposed as rehabilitation, compared to the existing condition and visual quality of the environment.
g. improved visual access to features that are appreciated in views such as the coastal environment, well known and valued natural and built/landscape features including sites of archaeological, heritage and contemporary significance and association.

6.3 There are a range of other opportunities to integrate further positive landscape and visual amenity benefits in the Project at the detailed design stage. These have been addressed at a high level within the LMP and have not been assessed in this report.

7. NATURAL CHARACTER EFFECTS - SCOPE

7.1 The Project shaping stage has similarly had a focus to avoid and integrate measures necessary to remedy and mitigate for effects on the biophysical and perceptual factors that contribute

[23] Assuming the mitigation measures set out in the LMP, and the site responsive approach agreed for a spatial strategy in the CMP.

to natural character. However, given the nature and extent of the Project, mainly through the coastal environment, including areas of high and outstanding natural character, and proximity and requirement to cross waterways, there will be residual adverse natural character effects. Policy matters direct a particular consideration to areas that have been identified to have outstanding and high natural character, however, natural character has not been assessed/rated in the Gisborne Region[24] (and the Opotiki District uses the categories very high and high natural character). Given this gap in background assessment information, and the likely, at least, moderate natural character values along the route, a precautionary approach relevant to this Project shaping stage has been assumed, with avoidance prioritised. Adverse effects will relate to:

a. the modification of natural landforms, vegetation (particularly indigenous vegetation), waterways, hydrological patterns, and habitats. Including the height and extent of cut and fill batters.
b. the location and design of the path in all areas of the coastal environment and where they interact with waterbodies and it's fit with the existing context, to include low-key, non-roading type components.
c. the nature and extent of any new planting, including for rehabilitation of the footprint or any other required mitigation, and how these fit with naturalised patterns in the environment, including known historical habitat types.
d. the requirement for new bridges and new natural (non-bridged) stream and river crossings including over waterways and their fit with the existing built landscape.
e. the nature and extent of other new structures, and their relative dominance and qualities or fit within the existing context.
f. where there is a loss or reduction to visual or physical access to the coastal environment and waterways for example due to the path structures or proposed rehabilitation planting.

7.2 Positive effects will relate to the counter factual of these matters, where, on balance there is shift in both the biophysical and perceptual factors that contribute to natural character. In this context, positive effects would result from:

a. enhancement and restoration of natural patterns of landform, hydrology, and indigenous vegetation i.e., improvements beyond the Project footprint, to increase the dominance

[24] TRMP C3.2.2 Objective 2 notes *"It is not possible to assess the natural character of the Coastal Environment as a discrete value. It is a composite of various 'traits' that when viewed together combine to provide the distinctive character of the Gisborne Coast. The individual 'traits' are identifiable".* This approach differs from some other regions/districts, where areas of High and Very High natural character are assessed and mapped inside a defined coastal extent.

of natural landscape patterns.

b. removal of existing structures or replacement with those that are less dominant visually and or have qualities that have a better fit in that context.
c. improved visual and physical access to the coastal environment and waterways, providing this is via sensitive construction methods following topography, avoiding indigenous vegetation removal and uses existing tracks as a base, where possible.

8. ASSESSMENT OF EFFECTS

8.1 The first section of the assessment (below) considers the components of the concept design and additional measures to avoid adverse effects on landscape (ONFL, natural and built landscape, visual amenity, and natural character) that are, otherwise, not able to be easily mitigated.

8.2 The second section of the **assessment** address the five Stages the Project. This effects assessment is necessarily at a high-level, given the design is at a concept stage and a comprehensive spatial strategy for all path types and palette for the other built components is yet to be developed (although agreed as an approach for the LMP and CMP). RMA provisions (see **Appendix B**) and regional and district planning matters, including permitted activities (refer to **Appendix B**) are considered in general terms along with the baseline evaluation (see **Appendix C**) and assumed mitigation measures, as are included in the LMP (see **Appendix D).** Other resources referenced in this Stage-by-Stage assessment include the:

a. digital kml file of the alignment, path types and new toilet and bridge features.
b. Te Ara Tipuna Conceptual Document, including typical cross sections and example sketches.
c. Te Ara Tipuna Proposal Document 2021 including the operating principles and objectives.
d. as further matters, the draft Te Ara Tipuna Passport (user guide) and Kaitiaki principles which will be developed post consent, through community and key stakeholder engagement.

9. CONCEPTUAL DESIGN – EFFECTS ASSESSMENT

9.1 With reference to the Te Ara Tipuna Conceptual Document cross sections and sketches and the responsive approach included in the CMP, the assessment findings are to further refine the Path Type designs, as these set the framework or backbone of potential adverse and positive landscape effects. Adverse effects will be avoided where:

a. path segregation markers are avoided, as a ‘typical’ treatment. Regular and standardised

use of segregation posts would contribute to adverse landscape effects due to visual clutter and adverse effects on the visual amenity of the rural landscapes and perceptions of natural character. Regular posts and/or reflector markers (for example, every 100m) would add a strong linear element to areas that are otherwise dominated by natural and rural and coastal community landscape patterns. A more responsive design approach, as confirmed for the CMP,[25] will manage these potential adverse effects. For example, vertical or horizontal[26] segregators might be required in specific locations, due to likely user conflict. In other areas expected behaviour can be supported by the expectations and guidance included in the Te Ara Tipuna user passport and through anticipated Kaitiaki roles. Segregators might be necessary in areas that are likely to be more popular, or at the start and end of 'Days' to set expectations (including at more frequent intervals or as a consistent ground level treatment on the boardwalks). However, a whole route approach to segregators would have adverse effects that are not able to be easily mitigated. It is understood that wayfinding markers will be required, for example, at the beginning and end of sightlines along the path, including design for lower light conditions. However, these are unlikely to be needed every 100m, for example, and could potentially instead be provided as/with distance markers (for example at 1km intervals) including the use of bespoke design elements that contribute to an overall narrative and identity

b. use of roading type elements is limited to where they are required, in formed road reserves. While individually of low impact, as a regular pattern of new built forms, roading type signs, markers and other structures would contribute to adverse effects on the existing values of the coastal and rural landscapes and ONFL. For example, where path segregators are needed, and understanding there is a need for these to be cost effective, they should not appear as roading type markers, such as off the shelf flexible hit sticks. Road crossing points will also be important in this regard, and while councils and Waka Kotahi will necessarily set requirements for crossing signage etc within the reserve, this built vernacular should not be continued outside of the crossing point. For example, the bollards/wayfinding elements shown in the Makorori Beach crossing in the Conceptual Document should not use roading type signs. In general terms, roading type elements will create the perception of an area for use by vehicles, rather than by walkers, cyclists, and horse riders, and should be avoided outside of formed road reserves.

[25] As confirmed in team discussions and assumed for this report.
[26] Horizontal segregators could be used on the boardwalk type path, for example, where rumble type strips or another form of 'roughening' will discourage cyclist use of the area intended for walkers.

c. stripping the grass layer and compacting the ground is avoided as a standard path treatment. During construction this would require further earthwork activity and equipment to be in areas that otherwise see very occasional farming type 'traffic'. Stripping also has implications for operational effects, as the process is likely to result in weed growth and, or require ongoing maintenance, presumably spraying to keep the area clear. As with segregators, similarly, this measure may be required in some locations, to increase track utility, for example, where grass growth is unlikely, there is a particular need or landowner request to define the path, the terrain is steep, and grass removal and/or compaction is necessary to provide track resilience. However, use as a typical treatment would have adverse effects that would be difficult to mitigate, due to the creation of a continuous, delineated path in an environment where existing farm tracks are intermittent and not always cleared. As a continuous feature this new linear 'structure' would have adverse natural character effects and detract from an immersive landscape and coastal environment experience.
d. the standard grassed track, with simple sightline wayfinding markers, is used in ONFL areas. Board walk type paths (raised and ground level) should be avoided in 'open pasture' ONFL. This path type would require additional construction activities and be an obvious new structure in an otherwise open landscape of pasture and rural fencing. In landscape terms and in this context, boardwalks will be appropriate in relatively small areas and in response to the existing values; where they can maintain or enhance contributing natural science, sensory or associative factors. For example, boardwalks may provide some advantages or help reduce earthworks and vegetation removal in some locations, be necessary where ground stability issues can be addressed through piling or to help protect wetland hydrology. As another 'structure' they could also fit well alongside other built forms, to help communicate an overall narrative and as a tool to enhance and uplift the mana of an area. For example, boardwalks are often used in more populated areas, to uplift and recognise the values of that community, or to signal the approach and appreciation of landmarks including awa, on approach to bridge structures. As included in the LMP, and once the core path type palette has been refined to avoid effects, as a first principle, there is value in developing an 'all path types' spatial strategy to support this and the overall narrative and identity for the Project.[27]
e. bridge design concepts and cross sections are yet to be developed. Any non-permitted structures could have an impact on landscape values and have particular relevance to adverse effects on the natural character given their setting over rivers, streams, and their

[27] As agreed in team discussions – the CMP is to include a responsive approach for detailed design stages.

margins. While the LMP provides for high level guidance as to the design and spatial arrangement of these structures, and the CMP will set out the need for site specific construction methodology, additional adverse effects could arise where greater numbers of bridges are required - as can only be determined during detailed design. For example, should additional bridges be required along the Wharekahika River (currently there are four structures proposed - a new clip-on structure on the existing road bridge at Wharekahika Bay and a new footbridge, small river crossing bridge and standard bridge crossing between the bay and SH 35 near Potaka) there may be a need to consider further measures to manage natural character effects, including options for alternative routes. Similarly, the design proposes a single bridge over Whareponga Stream (to and from Whareponga Rd), and, to the north of this, a natural crossing of the Wharekaha stream. Considering these locations, and the LMP mitigation proposed, natural character will be able to be maintained. However, should site work identify the need for additional bridges, including in response to a greater understanding of cyclone damage, this may 'tip' the natural character balance. Overall, the findings in this LVA are to carry out further investigation to confirm the number and type of bridges required for the project in each catchment and to consider the need to avoid additional adverse natural character effects.

10. MAKORORI HEADLAND TO TOLAGA BAY UAWA, STAGE E -– EFFECTS ASSESSMENT

10.1 For each Project Stage in turn, the assessment describes:

a. the existing environment, as a summary of the baseline evaluation, (see **Appendix C**).
b. the relevant aspects of the Project which will determine landscape effects in this Stage.
c. further investigation required at the detailed design stage, to avoid adverse effects through alignment and path type design refinement.
d. a high-level summary assessment of the residual effects (including LMP mitigation) on ONFL (where relevant), natural and built landscape, visual amenity, and natural character with a view to both construction and operational effects.

10.2 For completeness the Stages are assessed in sequence south to north, while acknowledging there will be varied journeys in terms of starting point, direction, and duration. Note: the Stage codes (Stage E, C etc) are not sequential, as they denote likely construction stages as stated in the 2021 Proposal Document. (Stages may be refined at a later date, depending on funding).

Existing Environment- Project Context

10.3 This stage of the Project traverses the coastal headlands, escarpments, and beaches with much of the journey accessing existing recreation and farmland tracks with limited sections of the journey, mainly for cyclists, aligned to SH35 and/or local formed roads. Unformed (paper) roads have been used as a basis for the path alignment in other areas. For example, inland of the new bridge along the Pakarae River.

10.4 Parts of Te Ara Tipuna are located within, or are near ONFL, waterways and areas of indigenous vegetation as identified on district planning maps (refer to **Appendix C**) and are relevant to the assessment of landscape effects. While areas of indigenous vegetation are more limited in this Stage, and the ONFL are generally open pasture, there are sensitive environments with important natural science values to consider including dunes, wetlands, and estuaries, for example at the Waiomoko River mouth and at Tolaga, Uawa and a marine reserve at Pouawa.

10.5 The existing visual and recreational experience of this area is relatively confined from the road and noting that SH35 follows an inland route from Pouawa. There are significant sections of the coast north of Pouawa that are relatively inaccessible from land and existing recreation tracks are limited to the beach off public roads and the tracks over Makorori headland (and other headlands informally, such as at Tatapouri) and the well-known connection to Cooks Cove walkway (which can be accessed as a side trip from Te Ara Tipuna). Historically, there have been horse trekking operations that accessed Makorori Beach, to and from Lysnar Road Wainui, and informal, or club type treks over the coastal farmland to the north of this (anecdotal knowledge). Recreational and commercial fishing is also common in the area, given its proximity to Gisborne City and Tolaga. The coastal edge and marine environment are well used and appreciated from the sea, for a variety of recreation and fishing, kai moana activities including by local communities such as at Whangara. There are many valued coastal and river mahinga kai located in these landscapes.

10.6 In terms of wider community and cultural connections contributing to landscape values there are many sites of archaeological and cultural significance featuring along the route, as documented in other discipline assessment reports. The shared path generally follows the historic east coast coach road and will bring users in contact with popular freedom camping areas at Turihaua and Pouawa and to the 'front' door of the marae at Whangara, with cyclists continuing along the so-called 'Private Road' on to the Pakarae River crossing.

Stage Specific Components

10.7 Topography and context constraints will mean a range of non-standard track types need to apply in this Stage. For example, in transitioning off Makorori Beach the 'new pathway through Existing Vegetation' (cross section 13) is proposed, and, on the approach Waihou Bay, the 'Low Volume Road, Utilising Existing Road Carriageway' (cross section 11) is likely to be the only practicable option. In general terms, it is not proposed to widen the existing shoulder where cyclists access SH35 or local roads.

10.8 Additional features proposed to provide essential services and connectivity include a new clip-on Bridge across the Pouawa River, a new over the Waiomoko and Pakarae River and a new toilet/shelter between Whangara and Waihou Bay.

10.9 With a view to the above summary of the Existing Environment - Project Context and Stage Specific Components, the mitigation measures described in the LMP, and the site-responsive approach confirmed for the CMP, the effects assessment findings for this Stage address:

Alignment and Path Types – Further Investigation Required

10.10 It is recommended that further investigation be carried out to avoid adverse landscape effects in the following locations:

a. At Makorori Beach to respond to and integrate with the GDC masterplan[28] proposal (currently out for public consultation) to avoid additional adverse effects and ensure legibility, clear cues for movement.

a. At Makorori Beach and the proposed connection to the lookout above, for horses. It is recommended that horses follow cyclists up onto Makorori Station and use the escarpment route to Turihaua. If for 'walkers only', the proposed connection, alongside the playground and unnamed stream, could be achieved with reduced earthworks and vegetation removal (and it is difficult to see how the required clearance for horses could be safely accommodated under the existing power pole stay). Horse riders would still be able to access the beach from the freedom camping carpark and then cross SH35 safely to Makorori Station (as horse trek operators have done in the past).

b. At Pariokonohi Point (ONFL Unit 13), and as a general principle relating to open pasture ONFL, it is recommended that a standard path type is used, rather than a raised boardwalk (noting that the detailed spatial arrangement of the path types is to be confirmed in the next stages of the project). Use of an additional raised structure (such

[28] Makorori Beach Master Plan | Participate (gdc.govt.nz)

as a boardwalk) would have adverse effects on the landscape values of this area, during construction and operation, that are not easily mitigated, and a standard type of path will provide for a more immersive experience.

c. At the Waiomoko River mouth (ONFL Unit 13) and the Pakarae River mouth, further investigation will be required to confirm the need for an alternative path type including consideration of a raised or ground level boardwalk to ensure wetland areas can be maintained and have the greatest future potential to be enhanced.

ONFL - High Level Effects Assessment

10.11 All the headlands are identified as ONFL in this Stage (bar the Makorori headland) along with the estuary, wetland, and river environments at Waiomoko and Uawa River. In general terms the landscape effects are assessed as appropriate for ONFL, considering the permitted activity rules, likely standard path type use, alignments that follow existing informal tracks, the LMP mitigation requirements and responsive approach confirmed for the CMP. The following comments are made as further guidance and explanation for detailed design development:

a. In general terms – segregation markers should be avoided through the ONFL. Where used as a standard or typical treatment, these markers will add a further built element into the landscape and have an adverse effect on values associated with the natural patterns (dominance of the natural landscape is required for an area to be identified as an ONFL).

b. Pariokonohi Point (ONFL Unit 13). As above, a raised boardwalk would be considered inappropriate in this location. It is not needed to help protect the values of this ONF. It would add a further linear, dominant built structure and there is no functional need for a boardwalk; it is not required for good access.

c. Waiomoko Stream mouth (ONFL Unit 13). In contrast, to Pariokonohi Point, wetland areas make a significant contribution to the landscape values here. An alternative path type, including consideration of either a raised or ground level boardwalk, is likely to ensure these values can be maintained, and potentially enhanced, in the future.

Natural and Built Landscape - High Level Effects Assessment

10.12 Overall, the concept for Te Ara Tipuna has an appropriate fit with both the natural and built landscape patterns of the existing environment and, providing the measures described in the LMP are implemented, and the CMP includes a responsive approach (as set out above in The Proposal), adverse effects will be able to be mitigated.

10.13 The remaining matters to be addressed are described above under Concept Design and Stage specific Alignment and Path Type - Further Investigation. Further, there will be a need to pay particular attention to the **transitions** between path types and landscape contexts in this Stage to ensure adverse effects are avoided and benefits can be realised. In this Stage Te Ara Tipuna traverses' headlands, dune, beach, escarpment, formed and unformed road reserves, wetland areas, makes numerous stream and river crossings and links to and through the Whangara community. These matters of finer grain detailed design are addressed as recommendations of the LMP and development of the User Passport.

Visual Amenity - High Level Effects

10.14 Measures to avoid and mitigate potential adverse visual amenity effects have been focus of the Project scoping phase, and in the development of the LMP.

10.15 However, the matters for further investigation addressed above, relating to the Concept Design elements and Alignment and Path Type, will be important to consider as they contribute to visual amenity. In particular, the use of roading type elements and path segregators (if included inappropriately[29]) will have adverse visual amenity effects.

10.16 Further, and while privacy is not specifically addressed in this assessment, adverse visual amenity effects for Whangara residents will be a matter to consider in detailed design. High level guidance relating to possible screening options is included in the LMP.

10.17 Overall, this Stage will provide significant visual amenity benefits to local communities and visitors due to the way in which it provides access to areas that are previously inaccessible and through a varied experience of landscape types.

10.18 Future stage recommendations included in the LMP also bring a focus to the opportunities to further enhance visual amenity. For example, through the consideration of the path type spatial strategy which will lend coherency and attention to the details of planting for both mitigation and possible restoration/enhancement, including developing a Stage specific palette and tohu/marker species.

[29] Refer to CMP under the heading The Proposal, above.

Natural Character - High Level Effects Assessment

10.19 Natural character effects relate to most of this Stage, as it located in the coastal environment and includes numerous stream crossings. Measures to ensure that both the biophysical and perceptual aspects of natural character are retained relate to three key matters.

a. alignment to avoid earthworks and vegetation removal and the rehabilitation of these sites.
b. the extent with which the proposed path type enhances or detracts from the experience of the natural environment including visual and physical access to the coast and elevated lookouts.
c. the nature (design vernacular) and extent of other built elements and their fit with the existing context and relative dominance in the landscape.

10.20 Notwithstanding the matters identified above that require further investigation (related to Concept Design and Alignment and Path Type - above), the findings of this assessment are that natural character will be able to be maintained in this Stage with the mitigation as assumed in the LMP and tiaki, care measures that will be supported by the Te Ara Tipuna user passport, and with the responsive approach confirmed for the CMP.

10.21 Overall, there are significant benefits provided by the Project in terms of perceptions of natural character, due to the way in which it will enable local communities and visitors to have enhanced access to the coastline.

10.22 While not consequential to the above assessment, as would be consistent with Part 2 of the RMA and the NZCPS policies, there are many opportunities to further enhance natural character values in this Stage of the Te Ara Tipuna. For example, through restoration of the Waiomoko Stream mouth wetland. High level guidance for future stage planting measures off the footprint, to enhance existing habitats, are included in the LMP. Note- these areas would be in addition to any requirements for mitigation and offset required due to adverse ecological effects.

11. TOLAGA BAY, COOKS COVE TO WAIPIRO BAY, STAGE C -– EFFECTS ASSESSMENT

Existing Environment- Project Context

11.1 From Cooks Cove and the Tolaga Bay wharf the Project follows existing informal tracks through the estuarine ONFL, to cross the river pass through the township of Uawa and on to the Earnest Reeve, escarpment walkway. In contrast to the previous Stage, broader inland

'loops' link Te Ara Tipuna to the coast north of Tolaga, as amended through the Project shaping, to avoid steep unstable escarpments and bush remnants. For the most part, cyclists follow the same route as walkers and horse riders, and while use of local road reserves, continue to feature in this Stage, there is very little contact with SH35, excluding the connections to and from the townships of Tolaga and Tokomaru Bay. Unformed legal (paper) roads have been considered in confirming the alignment, to link smaller settlements, for example, between Kaiaua and Anaura Bay. However, due to the limits of past surveying efforts (where the unformed legal road traverses steep eroding escarpments) these routes have been adjusted through the Project shaping phase. In preference existing tracks are used through inland areas, and to avoid protected and regenerating areas of indigenous vegetation. While there are regular access points to and from the coastal edge in this Stage, the beaches are less commonly used as part of Te Ara Tipuna, due to known coastal hazards and, or lack of navigable areas at high tide.

11.2 Due to the inland route, ONFL are less commonly traversed by Te Ara Tipuna, except at the Uawa Estuary and Earnest Reeves walkway area (ONFL Unit 10), where existing tracks will be used with minor upgrades. However, ONFL and Outstanding Natural Features (ONF) will form the wider context in views from the path, where there is elevation and an open aspect. For example, the elevated path above Nuhiti (along the existing private road) will offer views of Motuhina Island (Unit 7, an ONF). As in the previous Stage, there are numerous waterways in this landscape including scheduled rivers at Anaura and Tokomaru Bay (which will be crossed by existing bridges). In contrast these landscapes feature a greater pattern of regenerating and protected indigenous vegetation such as the Tawhiti Block. Other sensitive environments with important natural science values to consider include dunes, wetlands, and estuaries, for example, at the Waikawa Stream mouth. While consideration of coastal hazards has influenced the final route alignment in several areas, for example, to avoid the Waipiro Bay beach, in others there are limited viable alternatives. For example, at Tokomaru Bay, Te Ara Tipuna follows the narrow and eroding coastal edge through to Waima, as the possible inland route would follow the Mangahuini River and SH35, which is constantly damaged by flooding events.

11.3 Visual and direct physical access to the coast is not a feature of the existing journey along SH35 through this Stage, as the highway follows a route between Tolaga and Tokomaru Bay and then north to Ruatoria. This transport corridor has suffered considerable damage through successive cyclones in recent years. As is relevant to this Stage, there has been a need for new bridges and temporary roads to be constructed, for example along the Hikuwai River (at 'three' bridges') and the SH35 connection along the Mangahuini River, from Tokomaru Bay to

Te Puia, was impassable for several months, following Cyclone Gabrielle, February 2023[30]. From this inland route, local roads provide a 'point to point' connection into the small communities at Kaiaua, Anaura, Nuhiti (via a private road) and Waipiro Bays often along tributaries that have been impacted by flooding. As it relates to landscape effects, these routes are linked to both coastal communities and highly valued intergenerational campsites at managed and private sites often with good access, safe access to the marine environment for fishing and boating.

11.4 As is relevant to existing landscape values, recreational and commercial fishing is common in the area, although has a greater local presence compared to the Makorori- Tolaga Stage. This includes informal access over farms for hunting, fishing, and surfing (in Stage 1 these can be accessed via public roads). Travel by sea follows historic patterns extending to arrival of waka, and the area being well known as a coastal trading route, as marked by the wharf at Tolaga, now restored, and relics of wool store buildings and the wharf at Tokomaru, both common visitor and recreation destinations.

11.5 The narrative of archaeological and cultural significance continues through this Stage of Te Ara Tipuna, as signified by the historic and continuing pattern of kainga and marae and, in many ways, also, by the pattern of 'alternative' transport routes. For example, remnants of the old coach road bench cuts are often visible at the end of beaches (and in Stage 1); where the track had to cut up and over headlands.

Stage Specific Components

11.6 The standard path types will generally apply in this Stage; however, topography and other context constraints will require nonstandard track types in specific locations. For example, given the pattern of protected and regenerating indigenous vegetation the 'new pathway through Existing Vegetation' (cross section 13) will need to apply in many areas and given the steepness of the terrain, for example, in dropping down off the Earnest Reeves walkway to the inland route north, it is likely that in some location's steps will be required for walkers. Boardwalk type paths could also be used as part of the response to identified wetland areas, or as part of the overall spatial strategy to enhance legibility of the path and mana of its communities.

[30] While noting that the view of Tokomaru Bay from SH35 when travelling north, is spectacular- as it is travelling north into Tolaga Bay.

11.7 To provide for additional resilience through future flooding events, a quad bike/ATV accessible path is proposed from Tokomaru through to Ruatoria (Cross Section 15 in the Conceptual Document). The final alignment and requirements for this path type are yet to be confirmed.

11.8 There are no new bridges or clip on structures proposed in this Stage, other than small foot bridges over existing drainage channels along the Tokomaru Bay foreshore. The remoteness of the area will require further investigation to confirm this (see below assessment of natural character effects). New toilets/shelter are proposed at Kaiaua and north of Nuhiti near the Karorotuau Stream mouth.

11.9 With a view to the above summary of the Existing Environment - Project Context and Stage Specific Components, the mitigation measures described in the LMP, and the site-responsive approach confirmed for the CMP, the effects assessment findings for this Stage address:

Alignment and Path Types – Further Investigation Required

11.10 It is recommended that further investigation be carried out to avoid adverse landscape effects in the following locations:

a. Through all protected management areas to ensure the least impact and removal of indigenous vegetation.
b. At all proposed natural stream crossings. Given the remoteness of this area there may be additional bridge structures required or an alternative crossing point to be determined through site investigations
c. At the northern end of Kaiaua Beach, near the wool shed (assumed) where Te Ara Tipuna diverts off the formed carriageway towards Kaiaua Stream (crossing a tributary). Given the low traffic environment, a continued alignment along the road reserve would be preferred.
d. At Tolaga and Kaiaua Bay to consider the best path type to interface appropriately with the existing recreational uses of the campgrounds and the annual beach horse races at Kaiaua. As above, it is recommended that the sequence of path types is confirmed through a detailed design strategy and appropriate multi-criteria analysis.
e. At the northern end of Nuhiti Beach, aerials show an existing track transition off the beach which could be utilised.
f. Similarly, an existing track could be used to provide the natural crossing of Karorotau Stream north of Nuhiti.
g. At Tokomaru Bay, there may be alternatives to accessing the township via SH35 from the south. From a landscape perspective, given the narrow shoulders along this stretch of

the highway, which are confined against the Mangapuketea Stream and existing fences, this is likely to provide an unpleasant experience for walkers and horse riders arriving in the bay. It appears there are existing tracks over the farmland above the bay that could be used, exiting at the fire station near the bridge, and that a standard, low impact path type could be used to make this connection.

h. At Tokomaru, the requirements and final alignment to provide for ATV use along Te Ara Tipuna through to Ruatoria (in the event of a SH35 road closure), and use of Cross Section 15, if chosen (refer to the Conceptual Document) would require further investigation and assessment to understand and avoid adverse landscape effects. This path type is proposed over steep terrain and through protected management areas including a possible alternative inland river crossing at Waikawa Stream (the south end of Waipiro Bay) which will require an additional bridge structure.

i. On approach to Waipiro Te Ara Tipuna follows the local road and then transitions onto private land, to avoid areas of the road that have a very narrow shoulder. However, this also means that a new path will need to be constructed for all users (4.5m wide) through a protected management area of indigenous vegetation including its connection back onto Waipiro Road near existing residences. The path will follow natural contour and is part of the potential ATV route, however adverse landscape effects will result that will be difficult to mitigate given the likely requirement for vegetation removal and earthworks. While there are some pinch points, where there is a steep drop off, for the most part it appears that Te Ara Tipuna could be set off the carriageway alongside Waipiro Road and this option, or an alternative to reduce indigenous vegetation removal and earthworks is recommended for further investigation at detailed design. For example, should walkers be provided with the 'off road' path, this would be reduced in width and have less adverse effects.

ONFL - High Level Effects Assessment

11.11 In general terms the landscape effects are assessed as appropriate for ONFL; considering the proposed alignment, permitted activity rules, use of existing tracks, the LMP mitigation requirements, and the confirmed responsive approach for the CMP. As described in more detail above under Conceptual Design – Further Investigation, the use of path segregators as a standard path design, should be avoided in ONFL.

Natural and Built Landscape - High Level Effects Assessment

11.12 Overall, the concept for Te Ara Tipuna has an appropriate fit with both the natural and built landscape patterns of the existing environment in this Stage and, providing the measures

described in the LMP are implemented, and the CMP includes the path type responsive approach (set out above in The Proposal), adverse effects will be able to be mitigated.

11.13 The remaining matters to be addressed are described above under Concept Design and Stage specific Alignment and Path Type - Further Investigation. Further, there will be a need to pay particular attention to measures that reduce indigenous vegetation removal and earthworks including how the path is constructed in areas with steep terrain.

11.14 Detailed design 'fit' within existing communities is a further matter to be resolved, with high level guidance included in the recommendations of the LMP. This includes the way in which the path types will interface with local roads and residential properties where space is limited, particularly along the Tokomaru Bay foreshore, and alongside formal and freedom campsites at Kaiaua, Anaura, Nuhiti and Tokomaru Bay.

Visual Amenity - High Level Effects Assessment

11.15 The matters addressed for Stage E (refer above) to manage visual amenity, are also relevant to this Stage of Te Ara Tipuna.

11.16 Further, and while privacy is not specifically addressed in this assessment, there will be potential adverse visual amenity effects to manage in the detailed design of Te Ara Tipuna. High level guidance relating to possible screening options is included in the LMP, however there may also be some areas where further alignment changes are considered; as recommended above, on the southern approach to Waipiro Bay.

11.17 Overall, this Stage will provide significant visual amenity benefits to local communities and visitors. Te Ara Tipuna provides access to areas that are previously inaccessible including to many elevated vantage points overlooking ONFL and access to and through protected management areas with indigenous vegetation.

Natural Character - High Level Effects Assessment

11.18 Natural character effects are relevant to this Stage, where Te Ara Tipuna is in the coastal environment and follows or crosses waterways such as at the Waikawa Stream mouth. Measures to ensure that both the biophysical and perceptual aspects of natural character are retained relate to three key matters as stated above under the previous Stage.

a. alignment to avoid earthworks and vegetation removal within these areas and their rehabilitation.
b. the nature (design vernacular) and extent of the built elements and their fit with the

existing context and relative dominance in the landscape.

c. the extent with which the path types and their location enhances or detracts from the experience of the natural environment including visual and physical access to the coast and elevated lookouts.
d. in addition, the management of vehicle access will need to be carefully considered in this Stage, where it is proposed that Te Ara Tipuna will form an alternative access route from Tokomaru Bay to Ruatoria should SH35 be closed.

11.19 Notwithstanding the matters identified for further investigation above (related to Concept Design and Alignment and Path Type) the findings of this assessment are that natural character will be able to be maintained in this Stage. This assessment is also dependant on the mitigation, as assumed in the LMP and tiaki, care measures, that will be supported by the Te Ara Tipuna user passport, and with the responsive approach confirmed for the CMP.

11.20 There are significant benefits provided in this Stage, in terms of perceptions of natural character. This is due to the way in which Te Ara Tipuna will enable local communities and visitors to have enhanced visual and, in some areas, physical access to the coastal edge and areas of indigenous vegetation within the coastal environment. These perceptual benefits are dependent on the sensitive design and spatial arrangement of the track to avoid unnecessary earthworks, particularly in elevated areas, vegetation removal and bridge structures.

11.21 While not consequential to the above assessment, as would be consistent with Part 2 of the RMA and the NZCPS policies, there are many opportunities to further enhance natural character values in this Stage of Te Ara Tipuna. For example, through the enhancement of existing protected management areas. High level guidance for future stage planting measures away from the path earthworks footprint, to enhance existing habitats, are included in the LMP. Note: these areas would be in addition to any requirements for mitigation and offset required due to adverse ecological effects.

12. WAIPIRO BAY TO EAST CAPE, STAGE B -– EFFECTS ASSESSMENT

Existing Environment - Project Context

12.1 From Waipiro Bay Te Ara Tipuna will continue along Kopuaroa Rd to connect with Taharoa and Kiekie marae and the Parapara Rd end. From here, Te Ara Tipuna follows an unformed legal road, above the coastal escarpment, connecting with Whareponga and Tuparoa via

stream gulley's, using Reporua Road[31] to connect back to through Ruatoria and the bridge over the Waiapu River[32]. Access to the East Cape combines use of the SH35 and local road reserves, to the Rangitukia Road connection with Te Parera Steam from which point existing tracks, generally aligned with the unformed legal road alongside the waterway, is used to connect to the East Coast Road, via the saddle to the west of the maunga, Kokomukataranga. The East Cape light house area is currently closed to the public.

12.2 In contrast to the previous Stage, Te Ara Tipuna follows a closer coastal edge escarpment and river route, as refined through Project shaping, including the removal of an additional bridge structure at Awanui North Road to connect Tikapa Road to the Tikitiki township. This has meant that the communities of Reporua, Port Awanui and Tikapa will now be accessed as a side trip, to and from Tuparoa or Ruatoria. Cost and complexity of construction were the main factors considered in making this change, however, it is supported from a landscape perspective. The new structure would have needed to span the Waiapu over a wider flood plain and as a large structure within sight of the ONFL river mouth, have the potential for adverse natural character effects that would be difficult to mitigate. While offering a more direct line of travel along Te Ara Tipuna, access to these landscapes and coastal communities has been able to be maintained through the amended route.

12.3 For the most part, the path will be shared, with all users following the same alignment in this Stage. And in contrast to the Tolaga-Waipiro Stage, there is a return to align the path with SH35, between Ruatoria and Tikitiki, and a greater reliance on formed local roads. Unformed legal roads have been able to be used with fewer adjustments, as they avoid eroding slopes and the requirement to remove protected indigenous vegetation in this Stage. While there are regular access points to and from the coastal edge communities, in contrast to the previous stages, the beaches are not used proposed to be used, due to known coastal hazards and, or lack of navigable areas at high tide.

12.4 ONFL areas are largely avoided through this part of the journey excluding the East Cape (Unit 3) and noting, this area will be a focus of investigation in future stages (see below). While less common, compared to the previous stages, ONFL will continue to form the wider context and feature in views from Te Ara Tipuna, including the Waiapu River mouth estuary (Unit 4).

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[31] Port Awanui is proposed as a possible side trip off the end of Reporua Rd, using existing farm tracks and new trail alongside the Wairoa River following the alignment of an unformed legal road, to connect with Waiomatatini Road,

[32] Including access to the Mt Hikurangi track and future potential loop track via Tapuaeroa Road and Makarika Road

12.5 As in previous Stages, there are numerous waterways in this landscape including the scheduled Waiapu and Maraehara River (where the path uses existing bridges). Scheduled streams also feature to the north of this, including Te Parera Stream and all tributaries to Tunanui Stream flowing through the East Cape ONFL. In contrast to the Tolaga-Waipiro Stage, the pattern of indigenous vegetation is more dispersed and there are fewer protected management areas identified, noting that the path from Rangitukia to the East Cape is predominantly through regenerating bush with sites of ecological interest noted by the Project Ecologist. Other sensitive environments with important natural science values to consider include the areas of regenerating vegetation along the costal escarpment between Waipiro, Tuparoa and the Reporua Road connection and there are obvious dunes and wetland landforms within the East Cape ONFL.

12.6 Existing visual and direct physical access to the coast from SH35 is also limited in this Stage, as the highway follows an inland route from Ruatoria to Te Araroa. The connections to the coast and the marae-based communities are via narrow gravel roads that are regularly cut off by flooding events. The confining topography reinforce perceptions of the area as remote and bring a greater sense of the natural landscape along this coast.

12.7 As a further function of distance, and necessary self-reliance, there is a strong connection to the coastal environment and forest areas in these landscapes for 'kai based' activities which may interact with Te Ara Tipuna. Hunting, fishing, and diving has been retained as a pastime with a cultural purpose, to put kai on the table. While kai 'recreation' is a common contributor to landscape values for all communities along Te Ara Tipuna, it is particularly evident in these remote landscapes and is supported by semiprivate, local access routes and hapu-based management. Boat launching, from shingle beaches, and surf casting are part of this pattern of kai gathering. These activities can be dangerous, due to the exposed nature of this coast which lacks sheltered harbours, wharves and where there are narrow beaches above high tide mark along much of this coastline.

12.8 The resilience of the Waipiro- East Cape communities and the areas significance for Ngati Porou are reflected in the rich narrative of archaeological and cultural sites and ongoing connections to land and marae. As a clear tohu or marker of these values, Te Maunga Hikurangi, which will be viewed from Te Ara Tipuna, is acknowledged as a sacred place, the first to see the sun, the first point and part of the fish, Te Ika a Maui, to be pulled from the sea by the ancestor and atua Maui, and where his waka now rests.

Stage Specific Components

12.9 It is proposed that an ATV trail (Conceptual Document Cross Section 15) be constructed from Tokomaru Bay to Ruatoria to provide an alternative access route should SH35 be closed due to flooding damage. The details and extent of this path type are yet to be confirmed, the concept includes a 3m wide compacted and stabilised gravel track and a segregated 1.5m grassed track alongside (for horses). The standard path types will generally apply in this Stage, however, in parts topography and other context constraints will require a context responsive approach. For example, the 'New Pathway through Existing Vegetation' (Conceptual Document Cross Section 13) will likely need to apply in many areas along Te Parera Stream and the saddle connections to East Cape Road.

12.10 New Bridges are proposed in this Stage across the Whareponga and Waitekaha Streams (at Tuparoa). New clip-on bridge structures are required over the Mangakinonui Stream (near Harrison Road, Ruatoria) the Waiapu River and the Mangaoparo River. The remoteness of the area will require further investigation to confirm if any additional bridge structures are required (see below assessment of natural character effects). New toilets/shelter are proposed above Waipiro Bay, where the path intersects with Whareponga Road and in the elevated clearing alongside Rangitukia Road.

12.11 With a view to the above summary of the Existing Environment - Project Context and Stage Specific Components, the mitigation measures described in the LMP, and the site-responsive approach confirmed for the CMP, the effects assessment findings for this Stage address:

Alignment and Path Types – Further Investigation Required

12.12 It is recommended that further investigation be carried out to avoid adverse landscape effects in the following locations:

a. through all protected management areas and regenerating bush, wetland, and dune environments, to ensure the least impact on natural hydrological patterns and removal of indigenous vegetation. For example, where the path follows the banks of the Tohoratea Stream to/from Tuparoa and the Te Parera Stream to/from the East Cape Road.
b. at all proposed natural stream crossings. While these are assessed as appropriate, given the remoteness of this area and the need for further site investigations, there may be additional bridge structures required, or an alternative lesser impact crossing point (natural or bridged) that can be determined In detailed design.
c. along Tuparoa Road, to confirm that all path users will be able to use the existing stream

bed (as do existing vehicles) rather than the unformed legal road alignment – which would require indigenous vegetation removal.

d. along the 'Ruatoria track' – intended as the first, showcase, section to be constructed along SH35; from its intersection with Waiomatatini Rd to the Waiapu Bridge. This will be an important opportunity to test the landscape logic of the varying path types. For example, to use a raised boardwalk alongside the low-lying wetland areas visible in the farmland adjacent (to the south of the Farmlands Fuel Ruatoria Truck stop) and the ground level boardwalk path type on approach to the bridge, as a strategy to make more visible and uplift its mana. That is: to use a landscape logic to showcase the path types rather than an arbitrary side by side transition of 'samples'.

ONFL - High Level Effects Assessment

12.13 In general terms the landscape effects are assessed as appropriate for ONFL in this Stage, considering the proposed alignment, permitted activity rules, use of existing tracks, the LMP mitigation requirements, and the approach confirmed for the CMP.

12.14 As described in more detail above under Conceptual Design – Further Investigation Requirements, (and as agreed for the responsive approach to be adopted in the CMP), the use of path segregators as a standard path design should be avoided in ONFL.

12.15 In addition, one of the key findings of the assessment in this Stage is further investigation to confirm the appropriate alignment of Te Ara Tipuna through the East Cape ONFL (Unit 3), Noting that potential adverse effects have been avoided by removing the proposal for a possible 'loop' track to the lighthouse area (which is closed to the public) from the Te Parera Stream valley

Natural and Built Landscape - High Level Effects Assessment

12.16 Overall, the concept for Te Ara Tipuna has an appropriate fit with both the natural and built landscape patterns of the existing environment of Waipiro to East Cape and, providing the measures described in the LMP are implemented, and the CMP includes the responsive approach (set out above in The Proposal), adverse effects will be able to be mitigated.

12.17 The remaining matters to be addressed are described above under Concept Design and Stage specific Alignment and Path Type - Further Investigation. Further, there will be a need to pay particular attention to measures that reduce indigenous vegetation removal and earthworks including how the path is constructed in areas with steep terrain and adjacent to waterways.

12.18 Detailed design 'fit' within existing communities is a further matter to be resolved, with high level guidance included in the recommendations of the LMP. This includes the way in which the path types will interface with local roads and the options to avoid additional earthworks and vegetation For example, along the elevated sections of Rangitukia Road where there is regenerating indigenous vegetation and a narrow carriageway with no shoulders.

Visual Amenity - High Level Effects Assessment

12.19 The matters addressed under Stage E (refer above) to manage visual amenity, are also relevant to this Stage of Te Ara Tipuna.

12.20 Further, and while privacy is not specifically addressed in this assessment, there will be potential adverse visual amenity effects to manage in the detailed design of Te Ara Tipuna as where it connects with very remote communities. High level guidance relating to possible softening and screening options is included as a further recommendation in the LMP.

12.21 Overall, this Stage will provide significant visual amenity benefits to local communities and visitors. Te Ara Tipuna provides a varied journey along the coast including vantage points with views of significant landmarks and a transition from an east facing to a north facing coast. The journey will bring greater connections to unique coastal communities with marae at their centre and contrast this the settlements along the big broad Waiapu River landscapes and enclosed regenerating stream valleys.

Natural Character - High Level Effects Assessment

12.22 Natural character effects are relevant to this Stage, where Te Ara Tipuna follows the coastal edge and is within the coastal environment, and where there are new, or clip on bridge structures proposed and the path is located alongside waterways. Measures to ensure that both the biophysical and perceptual aspects of natural character are retained relate to four key matters, as stated above under the previous Stage.

a. alignment to avoid earthworks and vegetation removal within these areas and measures to ensure rehabilitation.
b. the nature (design vernacular) and extent of the built elements and their fit with the existing context and relative dominance in the landscape. Noting that the final design for the new bridges and clip on structures and the number of bridges is yet to be confirmed.
c. the extent with which the path types and their location enhances or detracts from the experience of the natural environment including visual and physical access to the coast and elevated lookouts.

d. in addition, the management of vehicle access will need to be carefully considered in this Stage, where it is proposed that Te Ara Tipuna will form an alternative access route from Tokomaru Bay to Ruatoria should SH35 be closed.

12.23 Notwithstanding the matters identified for further investigation, (related to Concept Design and Alignment and Path Type) the findings of this assessment are that natural character will be able to be maintained in this Stage. This assessment is also dependant on the mitigation, as assumed in the LMP and tiaki, care measures, that will be supported by the Te Ara Tipuna user passport, and with the approach confirmed for the CMP.

12.24 Perceptions of natural character will also be enhanced in this Stage due to enhanced visual and physical access to coastal and river environments. These perceptual benefits are dependent on the sensitive design and spatial arrangement Te Ara Tipuna to avoid unnecessary earthworks, particularly in elevated areas, vegetation removal and bridge structures.

12.25 While not consequential to the above assessment, as would be consistent with Part 2 of the RMA and the NZCPS policies, there are many opportunities to further enhance natural character values in this Stage of Te Ara Tipuna. For example, through the enhancement of wetland and dune areas adjacent to the East Cape Road.

13. EAST CAPE TO TE KAHA, STAGE D -– EFFECTS ASSESSMENT

Existing Environment - Project Context

13.1 From the East Cape Te Ara Tipuna is located within the road reserve, for the most part, through to Te Araroa where, in contrast to the previous Stage, the user paths split and rejoin along SH35 through to Wharekahika, Hicks Bay. The cyclist's journey through this area is accommodated within the road reserve of SH35 and formed local roads, apart from a small section of Koao Street in Te Araroa and the Haupara Point connection (for all users). Horses and walkers are proposed to access existing tracks along the foreshore and over Haupara Point (where horses will then follow the highway and walkers will use the existing track down to Onepoto Bay and local road connections. From Wharf Road to Whangaparaoa Bay all users will follow the same shared path, along the Wharekahika River and then alongside SH35 from Potaka apart from the transitions to an alignment off the highway, between the Opotiki-Gisborne District boundary and the existing Whangaparaoa Bridge. Enroute to Te Kaha, there is a continued pattern of cyclists following a separate alignment, along SH35, where it is possible for walkers and horses use the beach. Where the path is shared along SH35 through

to Waihau Bay it is located to the seaside within the road reserve, including on land beyond the paved shoulder. At Waihau all users transition onto the local road and the path links with an existing (narrow) track around Orete Point before continuing its SH35 alignment to the Raukokore River (and likely use of the shoulder from Putiki Rd). From the Raukokere River the shared path is predominantly located to the seaside beyond the SH35 road reserve through to Maraehako Bay and the Waiiti Stream and again from the headland west of Whanarua Bay to Te Huka Island. From Mouriuri Stream to Wharekura Point playground walkers and horses will be able to use the beach, and from the school entrance, there is an existing footpath that extends to the General Store from which a new path will need to be formed in the road reserve to the Te Kaha Hotel Road and proposed crossing to the existing footpath which extends beyond the St Johns Ambulance Station.

13.2 In contrast to the previous Stage, Te Ara Tipuna is very much confined to the coastal edge and a SH35 alignment other than its significant off-road sections along the Wharekahika River and between the district boundaries and Whangaparaoa River. Once on the Te Kaha coast there is no real option to use local roads, as these are limited in length, and are typically aligned perpendicular to the direction of the paths travel, reflecting the coasts characteristic landforms of narrow uplifted terraces set against prominent ranges. Where the path is proposed to follow an alignment away from the SH35 road reserve, this generally occurs in both districts in three circumstances: where there is the option for high tide beach access, such as at Whangaparaoa and Te Rangiharu Bay; where there is gently sloping land to the sea side of SH35, such as at Orete Point and Raukokere River; or where the highway is very confined, with limited or no shoulder, for example between Papatea Bay and Maraehako Bay.

13.3 ONFL form the immediate context or backdrop for Te Ara Tipuna through much of this Stage. In the Gisborne Region the path is located within the East Cape ONFL (Unit 3) and the Hicks Bay and Te Araroa ONFL (Unit 2) which extends to the Wharekahika River. In the Opotiki District the connections with ONFL are along the coast. From Whangaparaoa Bay, through to the eastern end of Waihau Bay, there are ONFL identified along the majority of the coastal edge, including areas that adjoin SH35 (such as ONFL 19 Whangaparaoa dune field, wetland, and estuary and ONFL 18 Oruaiti Beach, offshore rocks and Waikanapanapa cliffs). All beaches in this area are identified as ONFL and the Otamaoa Inland (ONFL1) forms a backdrop to the Te Ara Tipuna journey. This pattern continues from the Raukorere River mouth to the prominent headland east of Te Huka Island with ONLF identified to the immediate coastal edge, and the ranges behind (ONFL 17 Raukokore River Mouth, ONFL 16 Whanarua Bay, ONFL 1 ONFL 1 Ikawhenua Forest and Urewera Forest Inland). This includes areas where the path is set off SH35, for example between Papatea Bay and Maraekaho Bay. The remainder of the

journey into Te Kaha is set to a backdrop of ONFL 1 Ikawhenua Forest and Urewera Forest Inland.

13.4 As in previous Stages, there are numerous waterways in this landscape including those scheduled in planning maps, although for the most part Te Ara Tipuna will cross these using existing bridges. Exceptions to this include the scheduled Wharekahika River in the Gisborne Region (where new bridges are proposed) and natural crossings at stream mouths on the Te Kaha coast, where the path accesses the beach.

13.5 In contrast to the Waipiro –East Cape Stage there is a more consistent pattern of indigenous vegetation through this Stage including areas identified for protection management in the Gisborne region and as indigenous biological diversity areas in the Opotiki District. Of note, also, particularly on the Opotiki District Coast, these scheduled areas often extend beyond the ONFL, mainly recognising the pattern of Pohutukawa dominant forest along the foreshore and cliffs including where the path is proposed to be located between Papatea Bay and Maraehako Bay and on approach to Te Huka Island.

13.6 Scheduled wetland areas also feature in both districts along and near the path. These are identified as scheduled waterbodies in the Gisborne region, including the Te Whare wetland at Te Araroa, where the path will follow local roads, and in isolated locations alongside the Wharekahika River including the Wharekahika pond and protected management area bush, where the path will pass in proximity. On route to the Opotiki coast, scheduled wetlands also feature along the Te Rereauira Stream (Te Reauiria Swamp) through which the path is proposed to avoid a narrow section of SH35. Coastal dune wetland areas also feature at Whangaparoa Bay and Raukokere River adjacent to the path transition back onto SH35.

13.7 Areas of high natural character are identified along the coast from Te Ahikehe Point to Cape Runaway (the proposed route goes through on beach at Whangaparaoa) and at Raukokere River and over the rocky shoreline Te Kopua to Papatea Bay.

13.8 Other sensitive environments with important natural science values to consider are the apparent (non-scheduled) dune and wetland environments through the East Cape ONFL (parts are identified in the protected management area schedule) and the coastal edge of Orete Point which, as included in the archaeological and cultural impact report, which has significant values to Te Whanau- a- Apanui.

13.9 Existing visual and direct or near direct physical access to the coastal environment from SH35 and local roads is distinct feature of this Stage, as the roading network is confined to the

narrow-uplifted platforms with steep ranges behind. The exception to this being the link over to the Opotiki Coast via the Potaka saddle behind Matakaoa Point-Cape Runaway[33]. The views from SH35 are spectacular (of very high visual amenity) as its sinuous path provides a varied experience and outlook to the sea, over rivers, prominent headlands, and the ranges behind with the sweep of the wider Bay of Plenty in the background.

13.10 Inland and coastal' kai based' recreation for local communities continues through this Stage, reflecting the sequence of kainga and marae and hapu-based management. The larger rivers and tributaries contribute further to this including popular swimming holes on the Raukokore River. Hunting and gathering associations are further contributed to by large numbers of visitors to holiday homes and campgrounds, mainly over summer and in greater numbers on the Opotiki District Coast. Visitors to this coast over winter are often in response to the marlin and blue fin tuna season and are reflected in the sequence of fishing clubs and boat ramp and Waihau Bay wharf focused activities. While the landuse activities of the preceding Stages are characterised by more extensive farming operations, forestry, and beekeeping (regenerating manuka), there is a shift in these landscapes to cropping and horticultural activities (kiwifruit) and more intensive farming practices. These patterns reflect the change in soil type and shift to the warmer Bay of Plenty climate and, while SH35 can also be closed by flooding events, the general condition of the transport network is improved due to the underlying geology. And as a result, of these landuse and transport patterns, this Stage is more populated

13.11 The many and rich narratives to be told for Te Whanau -a -Apanui along this coast are further signified in these landscapes archaeological and cultural sites and ongoing connections to land and marae, as described further in other technical assessment reports. As it relates to landscape perceptions and associations, and because of the confined roading network, the sequence of hapu-based communities, including small urupa and local monuments and the Raukokore church feature prominently in the 'built landscape'. In the previous Stages, where marae and hapu connections are just as plentiful and, often, remote; located in discrete coastal communities, at the end of local roads.

Stage Specific Components

13.12 It is proposed that a compacted gravel track (Conceptual Document Cross Section 3) be constructed along the Wharekahika River section of the path, where required (and in line with

[33] Including the potential side trip to Wakatiri (Lottin Point), a popular fishing lodge and summer camping destination

the responsive CMP approach) to provide additional resilience. As in all other Stages topography and other context constraints will require non-standard track types to apply. For example, the 'New Pathway through Existing Vegetation' (Conceptual Document Cross Section 13) will need to apply over Haupara Point for walkers and horses.

13.13 At this concept stage of the Project, four new bridges are proposed along the Wharekahika River and another across the Waiongatiawa Stream at Wairuru mara). New clip-on bridge structures are required in five locations along the East Cape Road, on approach to Te Araroa, and on the existing bridge over the Wharekahika River and on all existing bridges in the Opotiki District through this Stage. Further site investigations are likely to be required to confirm if any additional bridge structures are required along the Wharekahika River, where tributaries are crossed (see below assessment of natural character effects), where beach access currently, rather than a clip on e.g., at Taikawakawa Stream (Te Tahi o te Tau marae) and in other 'off SH35' sections of the path where there are waterways. New toilets/shelter are shown along the East Cape Road at Orutua, along the Wharekahika River at Whangaparaoa Bay and Orete Point.

13.14 With a view to the above summary of the Existing Environment - Project Context and Stage Specific Components, the mitigation measures described in the LMP, and the site-responsive approach confirmed for the CMP, the effects assessment findings for this Stage address:

Alignment and Path Types – Further Investigation Required

13.15 It is recommended that further investigation be carried out to avoid adverse landscape effects in the following locations. Note, and as determined through the Project scoping feedback on landscape matters, the options for alternative path alignment are very limited by the confined topography. These findings are to provide Stage specific examples of mitigation as assumed in the LMP, and as guidance for the responsive approach confirmed for the CMP, rather than to recommend substantive changes to the route.

a. through all scheduled protected management areas, indigenous biological diversity areas, waterbodies and wetlands and other regenerating bush, wetland, and dune environments, to ensure the least impact on natural hydrological patterns and removal of indigenous vegetation. For example, alongside the river at Wharekahika Lake and through Te Rereauira wetland.
b. at all proposed natural stream crossings on the Wharekahika River and where beach access is proposed. While these are assessed as appropriate, due to the remote location and need for further site work, there may be additional bridge structures required, or an alternative lesser impact crossing point (natural or bridged) that can be determined

through detailed design.

c. where the path extends through an ONFL, including where the path it is to be located inside the road reserve and with specific consideration given to areas where there are no existing tracks, such as on the approach to Maraehako Bay. Options to reduce earthworks and indigenous vegetation removal through amended alignment and path type and, small section, narrowed width, should be prioritised. Path segregators should not be used as a standard treatment within, or where the path is used to view an ONFL, nor stripping of grass and ground compaction as a standardised treatment. A functional need for these elements, such as particular safety issues, should be determined as part of the overall path type spatial strategy in detailed design, and in response to further site investigations.
d. the requirement for a compacted gravel track along the extent of the Wharekahika River is reviewed and applied only where ground conditions require it (in keeping with the responsive approach CMP). A 3-4.5m gravel track along the river will appear as a road in an area which would otherwise offer the opportunity for a naturalised river valley experience and will require additional management such as use of removable bollards, to avoid regular use as an ATV or off-road motor bike hunting track.
e. the paths alignment through Te Rereauira wetland be refined to avoid wetland areas or the appropriate use of a boardwalk type path to retain hydrology and reduce earthworks and vegetation removal.
f. That path type at Orete Point be confirmed with the local community including options for a boardwalk which, may be appropriate to uplift the mana of the site. Noting that a compacted lime chip path may not be necessary to achieve all weather access for horses and would, as a more dominant path type, have adverse landscape effects in this context, being out of character with the coastal environment.

ONFL - High Level Effects Assessment

13.16 In general terms the landscape effects are assessed as appropriate for ONFL in this Stage, considering the proposed alignment, permitted activity rules, use of existing tracks, the LMP mitigation requirements, the responsive approach confirmed for the CMP, and the specific matters addressed above.

13.17 Alignment and path type and width refinement during detailed design will be essential to avoid further adverse effects, however the Project shaping stage has set an alignment with reduced impact. In particular, the balance between an alignment within the SH35 corridor which might have reduced earthworks and the experiential benefits of being ‘off road’ within

an ONFL where there are no existing tracks should be reviewed and confirmed in the detailed stages.

Natural and Built Landscape - High Level Effects Assessment

13.18 Overall, the concept for Te Ara Tipuna has an appropriate fit with both the natural and built landscape patterns of the existing environment of the East Cape to Te Kaha and, providing the measures described in the LMP are implemented, and the CMP includes a responsive approach (set out above in The Proposal), adverse effects will be able to be mitigated.

13.19 Stage specific matters to be addressed are described above under Concept Design and Stage specific Alignment and Path Type - Further Investigation above.

13.20 Detailed design 'fit' within existing communities is a further matter to be resolved and noting that is a much more populated area with a wide range of existing recreation and everyday land and sea-based activities going on. Matters to be address will include the way in which the path types will interface with each of the coastal communities, marae, churches, and other community facilities, such as the fishing clubs, campgrounds, existing footpaths, and tracks including those used for informal recreation along the dunes and by tourist operators offering e.g., horse trekking experiences.

Visual Amenity - High Level Effects Assessment

13.21 The matters addressed under Stage E (refer above) to manage visual amenity, are also relevant to this Stage of Te Ara Tipuna.

13.22 Further, and while privacy is not specifically addressed in this assessment, there will be potential adverse visual amenity effects to manage in the detailed design of Te Ara Tipuna as where it is proposed to access private land and an alignment near existing houses. High level guidance relating to possible screening options is included as a further recommendation in the LMP.

13.23 Overall, this Stage will provide significant visual amenity benefits to local communities and visitors where the alignment and path type refinement ensures low earthworks, vegetation removal and a low key 'fit'. Te Ara Tipuna provides a varied journey along this stunning coast and a more immersive experience through walking, cycling, and riding than on SH35 and includes access to the unique Wharekahika River valley.

Natural Character - High Level Effects Assessment

13.24 Natural character effects are relevant to this Stage, where Te Ara Tipuna follows the coastal edge and is mainly within the coastal environment, and where there are new, or clip on bridge structures proposed and the path is located alongside waterways. Measures to ensure that both the biophysical and perceptual aspects of natural character are retained relate to three key matters, as stated above under the previous Stage.

a. alignment to avoid earthworks and vegetation removal within these areas and measures to ensure rehabilitation planting.
b. the nature (design vernacular) and extent of the built elements and their fit with the existing context and relative dominance in the landscape. Noting that the design concepts for the new bridges and clip on structures and the number of bridges is yet to be confirmed.
c. the extent with which the path types and their location enhances or detracts from the experience of the natural environment including visual and physical access to the coast and other features. A standardised 4.5m wide gravel path alongside the Wharekahika River should be avoided and a boardwalk type path considered where the path needs to cross through Te Rereauira wetland and others identified on site.

13.25 Notwithstanding the matters identified for further investigation, (related to Concept Design and Alignment and Path Type) the findings of this assessment are that natural character will be able to be maintained in this Stage. This assessment is also dependant on the mitigation, as assumed in the LMP and tiaki, care measures, that will be supported by the Te Ara Tipuna user passport, and with the site-responsive approach confirmed for the CMP.

13.26 Perceptions of natural character will also be enhanced in this Stage due to the more immersive experience of walking, cycling and horse riding. These perceptual benefits are dependent on the sensitive design and spatial arrangement Te Ara Tipuna to avoid unnecessary earthworks, vegetation removal and standardised use of path segregators.

13.27 While not consequential to the above assessment, as would be consistent with Part 2 of the RMA and the NZCPS policies, there are many opportunities to further enhance natural character values in this Stage of Te Ara Tipuna. For example, through the dune environments along the East Cape Road and foreshore in the Opotiki District.

14. TE KAHA TO OPOTIKI, STAGE F – EFFECTS ASSESSMENT

Existing Environment - Project Context

14.1 From Te Kaha to Omaio the path is located within the SH35 road reserve, except for a short section along the unformed legal road on approach to the Haparapara River, where the carriageway is narrow and enclosed by indigenous vegetation. For the same reason, an off-road reserve route is proposed over the Waioira Stream to the saddle of Pokohinu Point at Omaio and may be an area where a taxi service is considered through to Maraenui where the river flats offer a short 'off SH35' alternative alongside the Waiopoahu Stream use of existing tracks on the foreshore. The transition back onto SH35 proposed would use existing residential driveways and, what would be a steep, bench cut track back up onto the road reserve. Similarly, it is proposed all users would drop down into Whituare Bay (Te Uritukituki Beach), to travel along the beach, via a likely steep track alongside the Maraenui Hill lookout stream and following the contours along the base of Haumiaroa Point, through regenerating bush. From Hawai to Torere Beach, walkers and horse riders would follow existing foreshore tracks while cyclists continue along SH35, and all users would travel along the SH35 road reserve up and over Haumiora and Pehitairi Point. All users are then proposed to divert along Opape Rd to access existing tracks along the foreshore of Opape - Omarumutu beach transitioning back onto the SH35 road reserve at the Waiaua bridge and then on to the existing Motu trails through to Opotiki. Horses are proposed to use the beach rather than the Motu trail, through to where it turns up off the coast to cross the Otara River.

14.2 As per the previous Stage, Te Ara Tipuna is very much confined to the coastal edge and a SH35 alignment with few options for local road or off-road connections. Where the path is proposed to follow an alignment away from the SH35 road reserve, this generally occurs in two circumstances: where there is the option for high tide beach access, such as at Maraenui, Whituare and Torere; and where there is gently sloping open land to the seaside of SH35, alongside the Haparapara and Motu Rivers. In contrast, a SH35 alignment and continuous connection, may be more difficult to achieve in this Stage due to the existing width of the carriageway and confining topography and indigenous vegetation in the road reserve. As a result, a taxi service may need to be used between Omaio and Hawai, including for horses and bikes.

14.3 The pattern of coastal edge and backdrop ONFL continue through this Stage of Te Ara Tipuna, from Hariki Beach, south of Te Kaha, to Opape (including ONFL 1 Ikawhenua Forest and Urewera Forest Inland, ONFL 13 Motu River Mouth, ONFL 14 Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point, ONFL 12 Maraenui Escarpment (Whituare Bay), ONFL 11

Whituare Bay, ONFL 10 Haumiaroa Point, ONFL 9 Pehitariri Point, ONFL 8 Haurere Point and ONFL 7 Tarakeha Point (Opape). As in the previous Stage, there are very few sections of Te Ara Tipuna, other than the Motu Trails, that do not have a direct or relatively immediate ONFL context. This provides an overarching guidance for sensitive alignment and low-key path types even where it is in the SH35 road reserve. Direct alignment within the Mararenui Escarpment (ONFL12) is proposed where the path transitions back up onto SH35 (and noting this section of the path may not be progressed – be 'bridged' via a taxi service for all users). Similarly, path to and from Whituare Bay beach (if accessed) would be formed through the Maraenui escarpment and Haumiaora Point ONFL (12 +10).

14.4 Similarly, a consistent pattern of indigenous vegetation threads along the coastal edge with many scheduled indigenous biological diversity areas extending beyond ONFL, and, in places bordering SH35.Indigenous biological diversity areas are identified over beach areas at Maraenui, Whituare Bay and Hawai and at Opape including where the path transitions back up to the Waiaua River bridge.

14.5 Waterways will be crossed via existing bridges in this Stage, along the beach sections of the path, as in the previous Stage.

14.6 Scheduled wetland areas also feature in this Stage, although to a lesser extent than in the previous; near the Waiopoahu Stream at Maraenui (where the path is proposed to follow an existing track where the taxi system does not apply) and at Opape where the path is proposed alongside in the dunes.

14.7 Areas of high natural character are identified along the coast from Okahu Point to Waiorore, Whituare Bay to Parinui and Whitianga Bay to Pokohinu Point. Very high natural character values are identified at the Haparapara and Motu Rive mouths and are associated with the ONFL headland and rock points from Hawai to Opape.

14.8 Other sensitive environments with important landscape values to consider are the apparent (non-scheduled) dune and wetland environments, for example, at Opape. Also, likely to be valued by local communities, is the continuing pattern of mature Pohutukawa trees set along the seaside of SH35, such as at Hariki Beach and Waiorore.

14.9 Existing visual and easy access to the coastal environment is a continued feature of this Stage, given the confined nature of the roading network which is set to narrow-uplifted platforms with steep ranges behind. SH35 provides a sequence of views and outlook to the sea, over rivers, prominent headlands, and the ranges behind with the sweep of the wider Bay of Plenty

in the background. Views from the sea back to the coast are a further feature of the popular boating experiences.

14.10 Coastal and inland areas continue to be valued for hunting and fishing by local communities and visitors alike, linked to a sequence of kainga, marae and hapu-based management. There are popular swimming holes at most of the larger rivers, for example on the Haparapara, often associated with known inland tracks for hunting. The pattern of local settlements set to the sheltered bays continues through this Stage with holiday homes and campgrounds that increase the population over summer, and in response to the tuna and marlin season over winter. Cropping and horticultural activities (kiwifruit) and more intensive farming practices feature along the coast with large scale forestry in the ranges behind and farming becoming more prevalent to the land side of the highway near Torere where the main ranges end.

14.11 Te Whanau -a -Apanui narratives and ongoing connections along this coast are further documented through the archaeology and cultural impact reports. As it relates to landscape perceptions, the sequence of hapu-based communities, including small urupa and local monuments continues through this Stage through to the marked transition, at the Waiaua River and the Motu Road, into the larger horticultural blocks and peri-urban areas of Opotiki,

Stage Specific Components

14.12 As in all other landscapes, given the confined topography of the area, non-standard track types will likely apply in some parts. For example, the 'Narrow Lane Adjacent Highway' (Conceptual Document Cross Section 7) will likely need to apply in many areas, as is also likely in the East Cape to Te Kaha Stage.

14.13 A clip-on bridge structure is proposed on the Haparapara, Motu (may not be needed if a taxi system is used), Waiaua and Torere Rivers. Further site investigations are required to confirm if crossing the stream mouth, beach, crossing of Torere River is possible (where a clip on to the existing bridge structure would provide an alternative). New toilets are proposed at Omaio, Maraenui (not required if the taxi system is used), Hawai and Opape.

14.14 With a view to the above summary of the Existing Environment - Project Context and Stage Specific Components, the mitigation measures described in the LMP, and the site-responsive approach confirmed for the CMP, the effects assessment findings for this Stage address:

Alignment and Path Types – Further Investigation Required

14.15 It is recommended that further investigation be carried out to avoid adverse landscape effects in the following locations. These findings are to provide Stage specific examples of mitigation as assumed in the LMP, rather than to recommend substantive changes to the route. As determined through the Project shaping, the options for alternative path alignment are very limited in this and the previous Stage due to the confined topography and patterns of indigenous vegetation.

a. through all indigenous biological diversity areas and schedule wetland areas and other regenerating bush, Pohutukawa stands, wetland and dune environments. Further site work should be used to ensure the least impact on natural hydrological patterns and removal of indigenous vegetation. For example, at Opape transition back on to the highway, the alignment can be further refined to follow existing tracks and consider proximity to the Omarumutu urupa.
b. at all proposed natural stream crossings where beach access is proposed. There may be additional foot bridge structures required, or an alternative lesser impact crossing point (natural or bridged) that can be determined through site investigations.
c. where the path extends through or near an ONFL, with specific consideration given to areas where there are no existing tracks and indigenous vegetation, for example to provide access to Whituare Bay. For the most part, through this Stage this requires careful consideration of the options to avoid additional indigenous vegetation removal and earthworks with the SH35 road reserve. Therefore, in terms of ONFL impact, the taxi system between Omaio and Hawai is likely to avoid adverse effects- where there is very narrow shoulders and additional works would be required.

ONFL - High Level Effects Assessment

14.16 Works within ONFL have largely been avoided in this Stage through the Project shaping iterations, and in general terms the landscape effects are assessed as appropriate for ONFL.

14.17 Should the path be confirmed to access Whituare Bay beach, measures should be used to reduce vegetation removal and earthworks to provide this access and to avoid the use of path segregators, other than on immediate egress on and off the highway.

14.18 Options to reduce earthworks and indigenous vegetation removal alongside the highway will also be important to consider due to the road reserves close association with ONFL. Large scale cuts (above eye height) and loss of mature vegetation, even if alongside an existing road, will have value and works at scale in these areas could have an adverse impact.

Natural and Built Landscape - High Level Effects Assessment

14.19 Overall, the concept for Te Ara Tipuna has an appropriate fit with both the natural and built landscape patterns of the existing environment of Te Kaha to Opotiki and, providing the measures described in the LMP are implemented, and the CMP includes the agreed approach (set out above in The Proposal), adverse effects will be able to be mitigated.

14.20 Stage specific matters to be addressed are described above under Concept Design and Stage specific Alignment and Path Type - Further Investigation above.

14.21 Detailed design 'fit' within existing communities is a further matter to be resolved, and, as per the previous Stage, noting that is a much more populated landscape with a range of existing recreation activities in pace. Matters to be address will include the way in which the path types will interface with each of the coastal communities, marae, churches, and other community facilities, including by local tourist operators and existing users of the Motu trails.

Visual Amenity - High Level Effects Assessment

14.22 The matters addressed under Stage E (refer above) to manage visual amenity, are also relevant to this Stage of Te Ara Tipuna.

14.23 Further, and while privacy is not specifically addressed in this assessment, there will be potential adverse visual amenity effects to manage in the detailed design of Te Ara Tipuna as where it is proposed to access private land close to existing houses. For example, at Maraenui (should this section of the path be progressed). High level guidance relating to possible screening options is included as a further recommendation in the LMP.

14.24 Overall, this Stage will provide significant visual amenity benefits to local communities and visitors where the alignment and path type refinement ensures reduced earthworks, vegetation removal and standard path construction, with a low key 'fit'. Te Ara Tipuna provides a varied journey with highly memorable views of the coasts unique natural and built landscape, and a more immersive experience, through walking, cycling and horse-riding.

Natural Character - High Level Effects Assessment

14.25 Natural character effects are relevant to this Stage, where Te Ara Tipuna follows the coastal edge and is mainly within the coastal environment, and where there are bridge structures proposed and the path is located alongside waterways such as at Haparapara and Maraenui. Measures to ensure that both the biophysical and perceptual aspects of natural character are maintained will relate to:

a. alignment and path type to avoid earthworks and indigenous vegetation removal within these areas and measures to ensure rehabilitation planting.
b. the nature (design vernacular) and extent of the built elements and their fit with the existing context, to avoid dominance in the landscape. The design concepts for the new clip-on structures are yet to be confirmed.
c. the extent with which the path types and their location enhances or detracts from the experience of the natural environment including visual and physical access to the coast and other features. In particular, access to the beach and dune areas which will enhance perceptions of natural character will need to be balanced against the requirement for indigenous vegetation removal and earthworks to achieve this.

14.26 Notwithstanding the matters identified for further investigation, (related to Concept Design and Alignment and Path Type) the findings of this assessment are that natural character will be able to be maintained in this Stage. This assessment is also dependant on the mitigation, as assumed in the LMP and tiaki, care measures, that will be supported by the Te Ara Tipuna user passport, and with the site-responsive approach confirmed for the CMP.

14.27 While not consequential to the above assessment, as would be consistent with Part 2 of the RMA and the NZCPS policies, there are many opportunities to further enhance natural character values in this Stage of Te Ara Tipuna. For example, through the dune and wetland environments at Maraenui and Opape.

15. SUMMARY OF EFFECTS AND CONCLUSIONS

15.1 Overall, the findings of this assessment are that the effects of Te Ara Tipuna on ONFL, landscape, visual amenity and natural character effects will be appropriate, with detailed design stages taking the site-responsive approach agreed for the CMP, and implementation of the mitigation assumed in the LMP. The Project shaping stages, including iterative review and feedback on landscape matters, have confirmed a general alignment, options for path types and new structures that bring a focus on avoiding adverse effects and practicable mitigation measures, as included in the LMP. The proposal is to develop a landscape sensitive walking, cycling and horse trekking path which will connect the communities of Ngati Porou and Te Whanau a Apanui and provide for greater immersive experience of the coastal and river environments, for whanau and visitors alike. This will maintain and enhance landscape values such that the proposal is appropriate under Part 2 of the RMA and relevant district and regional objectives and policies.

15.2 The potential for adverse effects can be further reduced through the following stages of the Project by addressing the matters summarised below within the responsive approach for the

CMP, and as are addressed in the LMP and considered in detail within the Conceptual Design and Stage specific assessment of effects above). Include measures to refine/ensure:

a. final alignment and path type options minimise indigenous vegetation removal and earthworks extents and heights. Prioritise the use of existing tracks rather than vegetated, steep unformed legal roads.
b. the path type and road crossing designs (typical cross sections) to avoid the use of roading type elements (where the path is outside the road reserve) and, in all areas, to avoid the use of path segregators, grass stripping and compaction as a standard treatment where there is no functional need related to clear cues for movement or safety.
c. existing tracks and grass surfaces, with simple sight line markers, are used in all ONFL areas (where the path is not located in a formed road reserve).
d. an overall strategy is developed, using a multicriteria type analysis (including functional need type topography such as steepness of terrain), to confirm where the sequence of path types, including boardwalks and gravel type paths, should apply.
e. the suite of new and clip on bridge structures and toilet/shelters are fit for their natural and built context, are of a low-key design that avoid visual dominance and respond to their context.
f. the potential adverse natural character impacts of additional bridge structures and the management of all natural stream crossings are considered including measures that could be used to avoid or mitigate.
g. the required extent of the Tokomaru/Ruatoria ATV trail and appropriate management of motorised vehicles on this section of Te Ara Tipuna during non-emergency events.
h. the required management, general exclusion of motorised vehicles on all sections Te Ara Tipuna other than for maintenance and development purposes.

15.3 There are many potential landscape benefits to be further developed through detailed design as can be guided by the LMP and CMP (and other management plan) recommendations and ongoing engagement with the Te Ara Tipuna ‘community’. Measures used to enhance natural environments, for example, through additional restoration planting, of dune and wetland areas and to buffer and enhance bush remnants, will provide further landscape benefits. Similarly, the development of an overall narrative including a wayfinding and interpretation strategy (paired with the path type strategy) could be used to help further uplift and enhance the values of the unique landscapes and community of Te Ara Tipuna.

Isthmus
July 2023

APPENDIX A- DEFINITIONS

This assessment uses the following definitions/explanations of **natural character, landscape,** and **visual amenity**, taken from Te Tangi a Te Manu, the Aotearoa New Zealand Landscape Assessment Guidelines (July 2022) provided by Tuia Pito Ora, New Zealand Institute of Landscape Architects (NZILA):

Natural Character

> *"Natural character is the distinct combination of an area's natural characteristics and qualities, including degree of naturalness."*
>
> *"Natural character is an outcome of physical environment and perception. Perception is influenced by what we know of an area's natural characteristics and qualities (including input from natural sciences) and how we experience them."*

Naturalness

> *"Naturalness" is a measure of the actual and apparent modification from a fully natural state."*
>
> Natural character is a type of character – the distinct combination of an area's natural characteristics and qualities. Naturalness is an attribute of that natural character.
>
> As a measure of the extent of modification present, *naturalness* is quantitative.
>
> As a distinct combination of natural characteristics and qualities, (including naturalness), the consideration of natural *character* is qualitative.

Landscape

> *"Landscape embodies the relationship between people and place. It is the character of an area, how the area is experienced and perceived, and the meanings associated with it."*

Landscape is an integrating concept. While landscape draws strands from diverse sources (natural sciences, humanities, cultural perspectives), it is perceived and experienced as a unified phenomenon. It is an integrated whole. It is more than a summary of data – the whole is greater than the sum of the parts.

Landscapes have biophysical (natural science), perceptual (sensory) and associative (shared and recognised) dimensions.

Visual Amenity

> *'Visual amenity' {is} shorthand for 'landscape values that contribute to amenity values.*
>
> *While such shorthand is widely understood and occurs in some statutory plans, a pitfall is the potential to overlook the whole landscape by jumping to certain aspects. A sound approach is to identify landscape values first, and then explain how such landscape values contribute to amenity values and the quality of the environment.'*

The RMA defines amenity values as:

> *"…those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."*

APPENDIX B: STATUTORY FRAMEWORK

Statutory provisions most relevant to this assessment include:

Resource Management Act 1991 (RMA)

Section 6 Matters of national importance

Recognise and provide for the following matters of national importance:

> *(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
> *(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
> *(e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

Section 7 – Other matters

Have particular regard to:

> *(a) kaitiakitanga:*
> *(c) the maintenance and enhancement of amenity values:*
> *(d) intrinsic values of ecosystems:*
> *(f) maintenance and enhancement of the quality of the environment:*

The RMA defines amenity values as:

> *"…those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."*

New Zealand Coastal Policy Statement

Objective 2

To preserve the natural character of the coastal environment and protect natural features and landscape values through:

- *Recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution.*

- *Identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and*
- *Encouraging restoration of the coastal environment.*

Policy 13

To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:

a) avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and

b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment, including by:

c) assessing the natural character of the coastal environment of the region or district, by mapping or otherwise identifying at least areas of high natural character; and

d) ensuring that regional policy statements, and plans, identify areas where preserving natural character requires objectives, policies, and rules, and include those provisions.

Policy 15

To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:

a) Avoid adverse effects of activities on outstanding natural features and outstanding natural landscapes in the coastal environment; and

b) Avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment, including by:

c) Identifying and assessing the natural features and natural landscapes of the coastal environment of the region or district, at minimum by land typing, soil characterisation and landscape characterisation and having regard to:

i. natural science factors, including geological, topographical, ecological, and dynamic components.

ii. the presence of water including in seas, lakes, rivers, and streams.

iii. legibility or expressiveness – how obviously the feature or landscape demonstrates its formative processes.

iv. aesthetic values including memorability and naturalness.

v. vegetation (native and exotic).

vi. transient values, including presence of wildlife or other values at certain times of the day or year.

vii. *whether the values are shared and recognised.*

viii. *cultural and spiritual values for tangata whenua, identified by working, as far as practicable, in accordance with tikanga Māori, including their expression as cultural landscapes and features.*

ix. *historical and heritage associations; and*

x. *wild or scenic values*.

b. ensuring that regional policy statements, and plans, map or otherwise identify areas where the protection of natural features and natural landscapes requires objectives, policies, and rules; and

c. including the objectives, policies and rules required by (d) in plans.

Regional/District Planning

The following provides a summary of relevant planning provisions for the Bay of Plenty Regional Council, Opotiki District Council and Gisborne District Council. This outline below has been summarised from more detailed information provided by the Project planning team (and confirmed as correct by the planning team).

O*NFL*

Under the TRMP vegetation removal over 500m2; land disturbance of more than 10m2/10m3; and structures34 over 2.5m in height/25m3 in volume will be considered a Restricted Discretionary activity, meaning that certain landscape-related criteria will need to be addressed for consent.

The ODC District Plan permits vegetation clearance in ONL up to a maximum of 100m2 in a 12-month period, with less permissive provision inside ONF (Discretionary status). Land disturbance up to 400m2/200m3/3m cut or fill height is permitted in ONL, with less permissive provision inside ONF (Discretionary status).

Coastal Environment

Under the TRMP vegetation clearance proposed in excess of 1ha; and land disturbance proposed in excess of 50m2/50m3 in a 12-month period, will need to address certain landscape-related criteria for consent (i.e., there will be a Restricted Discretionary status). If the proposed route is within 200m of the MHWS it will likely be considered under the discretionary rule (i.e., standards are less permissive, and any matter can be considered for consent).

[34] Outside the Residential Zone.

Under the ODC District Plan vegetation clearance over 100m2 in the Coastal Environment Overlay in any 12-month period is Discretionary; Land disturbance up to 400m2/200m3 is permitted.

Coastal Zone (ODC)

The ODC District Plan includes a Coastal Zone with standards relating to vegetation removal and land disturbance. These are slightly more permissive than in the Coastal Environment for vegetation clearance, but the same for land disturbance, in relation to areas visible from public road, reserve, CMA and foreshore.

Formed and unformed roads

Where the route passes through the coastal environment, ONFL, other environmental protection areas, coastal zoning (ODC), and/or is close to riparian areas, standards relating to vegetation removal and land disturbance and structures will apply under both the TRMP and ODC District Plan, with landscape-related criteria needing to be addressed for consent.

Outside of these areas (as listed above) where the track is inside road reserve in the TRMP, the activity will not require a land use consent, but any land disturbance, discharges etc will be assessed under the regional rules. In the ODC District Plan, if the track is within a road reserve (formed or unformed), the underlying zone standards and rules shall apply, as well application of the regional rules.

Riparian

Land disturbance and vegetation clearance in the riparian areas will be a consideration, particularly for those G15c scheduled water bodies. This is for TRMP and ODC District Plan.

The TRMP has controls for bridges and structures over Schedule G18 Outstanding Waterbody. At this stage, the track will not affect any of these scheduled rivers.

Under the TRMP the size of the catchment also determines the provisions applying.

APPENDIX C- Te Ara Tipuna: Baseline Evaluation of the Existing Environment

This baseline evaluation of landscape addresses outstanding natural features and landscapes, natural and built landscape and visual amenity characteristics and planning overlays relevant to the assessment of effects for Te Ara Tipuna. This analysis has a focus on the proposed 50m 'corridor' for the path (noting the final footprint of all works will likely be no more than 20m) along with its immediate context; where landscape values may be impacted. The evaluation follows a south to north route through each of the Project stages (that are likely for construction) and by landscape catchment/key destinations. Note, the landscape catchments vary somewhat from the proposed walking 'Days' (which are yet to be confirmed).

This baseline evaluation was completed to help inform landscape advice provided in the Project shaping, and series of discipline specialist 'hot spot' workshops, used to adjust and confirm the consent stage alignment for Te Ara Tipuna. Evaluation updates were then made, in response to the confirmed alignment, as required to inform the LVA. However, it should be noted, the Planning Overlay collumn retains all records considered relevant to the 'hot spot' alignment workshops.

Refer to Appendix A of the LVA for relevant landscape definitions.

Development Stage E					
Tairawhiti (Makorori Headland) to Cooks Cove (Tolaga Bay, Uawa)					
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[1] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[2] contributed to by the natural and built landscape**	**Planning Overlays[3] - as used to inform the alignment 'hot spot' specialist workshops**
Makorori Headland – Pouawa Beach Unit 14 Tatapouri, Makorori Unit 13 Whangara, Waiomoko Both units include terrestrial and marine areas over headland and rivermouth areas. These extend along much of the coastline in this area, to Pouawa Rivermouth. Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features* • Makorori Headland • Tatapouri Shore Platform: a geological site under TRMP • Turihaua Stream mouth/beach • Pouawa Stream mouth/estuary + sand bar *Natural landform types* • Beach, sand bar • Estuary • Coastal dunes • Coastal escarpment and headlands • Coastal hills behind escarpment - steep and including a prominent, simple ridgeline with a rolling/flat top Landform is predominantly unmodified. *Vegetation* Predominantly exotic: • Foredune: exotic grasses, with occasional trees/groups of trees. • Headlands and escarpment: Some natural regeneration but appears fairly sparse.	*Settlements/Key community facilities* Settlements are coastal: • Makorori Beach - seaward of SH35 and off the proposed path, but close and with easy access (existing road off SH35) • Tatapouri Bay–seaward of SH35; includes Tatapouri Bay Oceanside Accommodation Settlement nodes and other scattered rural dwellings are located close to/adjacent to SH35, connected to each other by SH35 only (vehicular connections only). *Other built form* SH35 on coastal edge Parking areas and unformed tracks/roads through dunes in places to the beach. Tracks – farm tracks on coastal hills + on escarpment in some locations. Tracks are predominantly in cleared areas (pasture/rough exotic grass).	*Key (defined/built) public look-out points:* • Makorori Lookout. Localised headlands. *Visual access from the proposed route:* • Coastal escarpment, ridgetops and elevated slopes are predominantly in pasture allowing open, unimpeded, and expansive views of the coastal edge, CMA, and inland areas. • Views from the coastal edge (sea-level) provide predominantly unimpeded outlook towards the CMA over low vegetation and/or beach. • Views to inland areas from the coastal edge are variable – at times blocked by landform or vegetation, but at other times with views possible inland up coastal valleys. *Potential viewing audience:* • Path users • Boaties (elevated parts of path)	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* – applies to all areas of the Day 1 proposed route ***Note: natural character ratings are not assessed in the TRMP*** *Urban Ridgelines* *Significant Values Management Area* From Makarori Headland to just south of Pouawa Stream – including CMA and terrestrial areas. *Terrestrial Areas of Significant Conservation* • Tatapōuri Point WP20 • Pouawa River WR58 (river mouth and adjacent escarpment) *Significant Recreation Areas* • Turihaua Stream (Schd G19) • Pouawa Rivermouth (Schd G19)

[1] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[2] Refer to Appendix A in the LVA for the definition of visual amenity.
[3] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Coastal hills: predominantly pasture. • Consistent taller vegetation (trees/shrubs) to either side of SH35 landwards of Makorori Beach settlement. *Awa/Streams (crossings)* • Turihaua Stream • Pouawa River • Others un-named on the planning maps		• Dwellings: - at settlements - scattered along route • Drivers on SH35. • Recreation users (Significant Recreation Areas)	*Scheduled Rivers & Streams* • Pouawa River (SCHD G15B) **GDC Proposed Regional Coastal Environment Plan** *ONFL* Units 13 and 14 (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[4] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[5] contributed to by the natural and built landscape**	**Planning Overlays[6] - as used to inform the alignment 'hot spot' specialist workshops**
Pouawa Beach – Whangara	Unit 13 Whangara, Waiomoko Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Pariokonohi Point + escarpment • Waiomoko River mouth – broad river flats + estuary • Beach: narrow high tide beach north of Pariokonohi Point; wide dry areas at Whangara. • Whangara Island – off a headland/point at Whangara (wider context) *Natural landform types* • Estuary • Wide curved bays • Coastal dunes • Coastal escarpment and headlands • Coastal hills behind escarpment • Meandering river corridors with varying scales and vegetated character Landform is predominantly unmodified. *Vegetation* • Predominantly exotic – coastal hills and ridges in farmed pasture. • Indigenous regeneration is occurring on steep coastal escarpment, (particularly at Pariokonohi Point), and in steep coastal valleys. • High-value indigenous estuarine vegetation at Pouawa River mouth, at	*Settlements/Key community facilities* • Whangara - located at Whangara Beach, at the end of Pa Road (which comes off SH35). Settlement form consists of two primary roads parallel to the beach. Dwellings front the beach. • Whangara Marae (Whitireia and Waho te Rangi wharenui)– at Whangara Beach. • Whangara School (Pa Road) + scattered rural settlement along Pa Road and Waiomoko Road (inland) off SH35. Vehicular access (Pa Road) linking the beach settlement (and proposed route) to inland rural community. *Other built form* No formed public access connection along the coastal edge between Pouawa Beach and Whangara - inland vehicular route only (along SH35 and then Pa Road). Minimal tracks on escarpment Minimal tracks between SH35 and coastal edge between Te Tapuwae o Rongokako Marine Reserve (at Pouawa River mouth) and Waiomoko River/estuary	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Coastal escarpment, ridgetops and elevated slopes are predominantly in pasture allowing open, unimpeded, and expansive views of the coastal edge, CMA, and inland areas. • Views towards the CMA are typically back from the coastal edge; outlook will be predominantly across low vegetation. Views of the sea may be impeded at times by landform/dune formations. • At major river mouths open views are possible inland up the river valleys. • Inland route is predominantly through pastureland, allowing unimpeded and expansive views of inland river valleys and inland coastal hills, and in places there may be views along valleys to the coast. *Potential viewing audience:* • Path users • Boaties (elevated parts of path)	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* - does not apply to parts of the proposed inland route ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • Pariokonohi Point (CMA + terrestrial areas) • Waiomoko River mouth + estuary • Whangara Island All the above include CMA and terrestrial areas. *Terrestrial Areas of Significant Conservation* • WR57 Whitiwhiti Stream Bush - located in a coastal valley – adjacent to proposed route. • WR56 Waiomoko Rivermouth – Te Awa Tipuna is proposed through WR56. A proposed bridge for the path appears to be at the edge of WR56. *Scheduled Rivers & Streams*

[4] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[5] Refer to Appendix A in the LVA for the definition of visual amenity.
[6] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		Te Tapuwae o Rongokako Marine Reserve. • Regenerating estuarine vegetation at Waiomoko River mouth/estuary; • Inland Waiomoko River flats are predominantly in pasture. *Awa/streams (crossings)* • Pouawa River • Waiomoko River	Very few built structures apparent on coastal hills and coastal edge between Te Tapuwae o Rongokako Marine Reserve (at Pouawa River mouth) and Waiomoko River/estuary	• Dwellings: - at settlements - scattered along route • Drivers on SH35. • Recreation users (Significant Recreation Areas)	• Waiomoko River (SCHD G15B) *Reserves* • Te Tapuwae o Rongokako Marine Reserve (at Pouawa River mouth) **GDC Proposed Regional Coastal Environment Plan** *ONFL* Unit 13 (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[7] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[8] contributed to by the natural and built landscape**	**Planning Overlays[9]**
Whangara to Waihau Bay	Unit 13 Whangara, Waiomoko Unit 12 Waihau Bay, Waiharehare Bay Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Whangara Island • Pakarae River • Coastal cliffs *Natural landform types* • Bays and sandy beaches • Dunes • Wave cut shore platforms • Rugged coastal escarpment/cliffs • Rocky headlands and outcrops • Coastal ranges • Deeply cut stream valleys to the shore • Broad inland river valley/valley flats Landform is predominantly unmodified. *Vegetation* • Predominantly exotic – inland hills and river valleys farmed • Areas of streamside vegetation • Remnant bush • Areas of regenerating indigenous vegetation including wetland (inland, within farmland), in parts in coastal valleys and on escarpment. *Awa/streams (crossings)* • Pakarae River	*Settlements/Key community facilities* • Waihau Bay Beach – a small cluster of coastal dwellings; adjacent to Waihau Road. Development sits on slopes above the coastal edge. *Other built form* • Waihau Road, off SH35 to Waihau Bay • Farm tracks – limited on the coastal escarpment. • Very sparsely scattered rural built form/dwellings	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Coastal escarpment, ridgetops and elevated slopes are predominantly in pasture allowing open, unimpeded, and expansive views of the coastal edge, CMA, and inland areas. • In some limited parts views out from escarpment track may be blocked by vegetation. • Views from the coastal edge (sea-level – at either end of the Day) have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and some views inland up coastal valleys. • Inland route is predominantly in pasture, allowing unimpeded and expansive views of inland river valleys and inland coastal hills, and in places there may be views along valleys to the coast. *Potential viewing audience:* • Path users • Boaties (elevated parts of path) • Dwellings:	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* - does not apply to parts of the proposed inland route ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* Much of the coastline and adjacent waters; headlands including ONFL *Terrestrial Areas of Significant Conservation* WR55 Whangara Beach (dunes) WR49 Waihau Road Wetland *Protected Watercourse* Makatote Stream G21 *Scheduled Water Bodies* Kings Farm Wetland G17 Waihau Road Wetland (a) and (b) G17 **GDC Proposed Regional Coastal Environment Plan**

[7] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[8] Refer to Appendix A in the LVA for the definition of visual amenity.
[9] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Other streams (unnamed on planning maps)		- at settlements - scattered along route • Drivers on SH35.	*ONFL* Units 13 & 12 (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[10] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[11] contributed to by the natural and built landscape**	**Planning Overlays[12]**
Waihau Bay to Tolaga Bay	Unit 11 Pourewa Unit 10 – Tolaga Bay (south end only of Unit 10) Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Uawa River Estuary (ONF) • Mt Titirangi • Pourewa Island • Cooks Cove *Natural landform types* • Wide coastal shelf/wave cut platforms • Dunes • Dramatic coastal escarpment/cliffs • Rocky headlands and outcrops/islands • Deeply cut gullies to the shore • Coastal ranges extending inland • Broad inland river valley/valley flats • Estuary/river mouth • Floodplain (Uawa River) • Bay, sandy beach, lagoon, and spit Landform is predominantly unmodified. *Vegetation* • Predominantly exotic – inland hills and river valleys are farmed or used for horticulture • Escarpment • Expansive areas of remnant/regenerating indigenous vegetation – on parts of escarpment, in coastal valleys, on inland slopes of ranges, associated with streams on valley floors, and on dunes at Titirangi (WR36 – refer to Planning Overlays) *Awa/streams (crossings)* • Uawa River • Other streams (unnamed on planning maps)	*Settlements/Key community facilities* • Tolaga Bay – coastal settlement at the mouth of Uawa River • Titirangi – small coastal settlement at the base of Mt Titirangi and at the south end of Tolaga Bay • Hauiti • Poho O Te Rawheoro Marae • Hauiti Marae • Mai Marae *Other built form* • Well-known/recognised side track – Cooks Cove walkway (connected to the proposed route) • Farm tracks including up coastal valleys towards inland areas. • Tolaga Bay Wharf • Roading - Highway 35 skirts the coast at the mouth of the Uawa River and minor roads on both sides of Tolaga Bay give access to the base of the cliffs.	*Key (defined/built) public look-out points:* None mapped. Localised headlands. Cooks Cove lookout (side trip). SH35 vantage to Tolaga Bay *Visual access from the proposed route:* • Views from the coastal edge (sea-level – at either end of the Day) have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and will often include views inland up coastal valleys. • Elevated coastal slopes are a mixture of pasture and vegetated areas, meaning a range of open and enclosed views will be likely. Vegetated parts of the route may offer elevated “glimpses out” at times. • Inland valley flats are predominantly in pasture, allowing unimpeded and expansive views of contrasting, dramatic coastal ranges including Mt Titirangi, and with open views along broad river valley towards the coast. *Potential viewing audience:* • Path users • Boaties (elevated parts of path) • Dwellings: - at settlements - scattered along route • Drivers on SH35. • Users of Significant Recreation Areas (refer to the Planning Overlays column)	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Proposed inland route (along Shelton Road) is not covered by the Coastal Environment overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • CMA at Waihau Bay Beach • Headland, offshore islands + CMA at Mt Titirangi/Cooks Cove (proposed route avoids) • Dunes, rivermouth at Cooks Cove *Terrestrial Areas of Significant Conservation* • WR 36 Tolaga Bay Estuary (route proposed through) *Scheduled Rivers and Streams* Uawa River G15B *Significant Recreation Area* Uawa River – at the Main Road/Cook Street bridge Uawa River – at the river mouth **GDC Proposed Regional Coastal Environment Plan** *ONFL* Units 10 & 11

[10] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[11] Refer to Appendix A in the LVA for the definition of visual amenity.
[12] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					(Refer to the separate column in this table).
Development Stage C					
Cooks Cove (Tolaga Bay) to Waipiro					
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[13] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[14] contributed to by the natural and built landscape**	**Planning Overlays[15]**
Tolaga Bay to Kaiaua Bay	Unit 10 Tolaga Bay North Unit 9 Karaka Bay Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Tatarahake Cliffs/Te Karaka Point Escarpment • Tokatea Rocks *Natural landform types* • Prominent inland ridge (Te Karaka Point Escarpment) • Floodplain (Uawa River) • Prominent rocky headlands • Steep, rugged coastal escarpment/cliffs • Coastal ranges, including enclosed river- valleys with flats and deeply incised gullies • Long sandy beach • Dunes • Stream mouth-estuary • Offshore rocky outcrops Landform is predominantly unmodified. *Vegetation* • Predominantly exotic – inland floodplain is farmed • Limited vegetation on the floodplain associated with Uawa River. • Escarpment and coastal hills are predominantly cleared (historic); some areas of remnant/regenerating indigenous vegetation • Areas of exotic forestry on the coastal ranges *Awa/streams (crossings)* • Uawa River	*Settlements/Key community facilities* • Sparsely scattered dwellings only (north of Tolaga Bay) • Puketawai Marae (at a distance, away from the route) *Other built form* Farm tracks including up coastal valleys towards inland areas. Roads - SH35; Kaiaua Road Earnest Reeve Walkway (starting at Tolaga Bay).	*Key (defined/built) public look-out points:* Earnest Reeves walkway. Localised headlands. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and will include views inland up coastal valleys. • Parts through vegetated hills will provide enclosed views with glimpses out at times. • Valley floors offer predominantly open views of expansive farmed river valley and flats, set against contrasting landform of the coastal ranges. *Potential viewing audience:* • Path users • Dwellings: - Isolated dwellings at Karaka and Kaiaua Bays. • Drivers on SH35 • Users of Significant Recreation Areas (refer to the Planning Overlays column).	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Proposed inland route is not covered by the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • At Karaka Point (terrestrial and CMA; at ONFL Units 9 and 10) *Terrestrial Areas of Significant Conservation* • WP12 Tatarahake Cliffs (at Te Karaka Point Escarpment) *Scheduled Rivers and Streams* Uawa River G15B **GDC Proposed Regional Coastal Environment Plan** *ONFL* Units 9 & 10 (Refer to the separate column in this table).

[13] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[14] Refer to Appendix A in the LVA for the definition of visual amenity.
[15] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Other streams (unnamed on planning maps)			
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[16] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[17] contributed to by the natural and built landscape**	**Planning Overlays[18]**
Kaiaua Bay to Anaura Bay	Unit 8 Motuoroi Island / Marau Point Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Marau Point (ONF) • Morutoroi Island (ONF) • Anaura Bay (Scenic Reserve) *Natural landform types* • Long sandy beach/bay • Dunes • Prominent rocky headlands • Steep, rugged coastal escarpment/cliffs with deeply incised gullies. • River valleys with flats; enclosed by coastal ranges. • Off-shore island (Morutoroi) • Stream mouth + lagoon + beach (Anaura Lagoon) Landform is predominantly unmodified. *Vegetation* • Coastal ranges are historically cleared but now characterised by regenerating indigenous vegetation • Some exotic forestry blocks present • Expansive areas of remnant/regenerating indigenous vegetation at Marau Point. • Includes river valleys with complex vegetation patterns including areas of pasture for farming, mixed vegetation/trees, (often associated with streams), and with regenerating indigenous vegetation prevalent in some valleys. • Escarpment (away from the route) is predominantly unvegetated (cleared and now eroded) *Awa/streams (crossings)* • Anaura Stream (Lagoon)	*Settlements/Key community facilities* • Very sparsely scattered farm buildings/dwellings in the area • Anaura – small coastal settlement comprising a number of small clusters of dwellings and a marae, scattered along the length of Anaura Bay/beach. Streets/roads run parallel to the coastal edge. Dwellings front the coastal edge. • Hinetamatea (Anaura) Marae • Camping ground at Anaura. *Other built form* • Anaura Bay Track. • Farm tracks on coastal hills and in valleys. Tracks are limited on escarpment. • Roads - Anaura Road (off SH35 to Anaura coastal settlement and running the length of the bay parallel to the coastal edge); Kaiaua Road (adjacent/parallel to the beach at Kaiaua Bay).	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and at times will include views inland up coastal valleys. • Inland route provides mixed and changing views as it moves in and out of vegetation, on and off hills and valley floor. At there will be open, elevated views of the coastal edge. Other parts will provide views of smaller-scale river valley settings. *Potential viewing audience:* • Path users • Boaties (elevated parts of path) • Dwellings: - at settlements - scattered along route • Drivers on local roads are Kaiaua and Anaura Bay. • Users of Significant Recreation Areas (refer to the Planning Overlays column)	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* A small section of the proposed route is not covered by the Coastal Environment Overlay (where it passes landward of a headland near Anaura). ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • At Marau Point (terrestrial and CMA) • At Morutoroi Island (terrestrial and CMA) • At WR35 (refer below) *Terrestrial Areas of Significant Conservation* • WR 35 Kaiaua Bush (at Marau Point) • WR 32 Morutoroi Island *Scheduled Rivers and Streams* *Significant Recreation Area* Mouth of Anaura Stream Mouth of Hawai Stream **GDC Proposed Regional Coastal Environment Plan** *ONFL* Unit 8 (Refer to the separate column in this table).

[16] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[17] Refer to Appendix A in the LVA for the definition of visual amenity.
[18] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Hawai Stream • Other streams (unnamed on planning maps)			
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[19] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[20] contributed to by the natural and built landscape**	**Planning Overlays[21]**
Anaura Bay to Tokomaru Bay	Unit 7 Nuhiti Unit 6 Mawhai Point Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Anaura Bay Scenic Reserve • Extensively vegetated coastal ranges • Mawhai Point (ONF) • Motuhina Island (ONF) *Natural landform types* • Wide coastal shelf/narrow coastal edge • Sandy beach/wide bay • Dunes • Prominent rocky headlands • Steep, rugged coastal escarpment/cliffs • Coastal ranges with deeply incised gullies predominating • Broad river valley/flats • Rivermouth/estuary • Off-shore island (Motuhina) Landform is predominantly unmodified. *Vegetation* • Coastal ranges include large areas of remnant/high-value indigenous vegetation • Foothills are historically cleared but now characterised by regenerating indigenous vegetation • Coastal escarpment often includes areas of regeneration • Inland river flats along the Hikuwai River are predominantly in pasture • Exotic forestry blocks present near Anaura Bay check • Mangahauini River valley behind Tokomaru Bay has complex vegetation patterns including areas of pasture for farming, mixed exotic	*Settlements/Key community facilities* • Nuhiti Beach – small coastal settlement; located behind a road on the coastal edge. • Tokomaru Bay – larger coastal settlement along the length of the Bay and back inland along SH35 and the Mangahauini River. Dwellings are for the most part landward of roading along the beachfront. • Tuatini Marae at Tokomaru Bay • Scattered development along SH35 and other coastal-edge roads *Other built form* • Farm tracks on coastal hills and in valleys. Tracks are limited on escarpment. • Roads – prevalent at the coastal edge between Anaura Bay and Nuhiti (including on elevated parts of foothills); and at Tokomaru Bay.	*Key (defined/built) public look-out points:* None mapped. Localised headlands. Anaura Bay Rd – rest area. SH35 vantage to Tokomaru Bay and Mt Hikurangi *Visual access from the proposed route:* • Views from the coastal edge at sea-level will have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and at times will include views inland up coastal valleys. • At times there will be open, elevated views of the coast and sea as the track moves landward onto foothills in mixed pasture/regeneration. • Route through vegetated hills will likely be predominantly enclosed, with possible occasional views out, and open elevated views to the CMA on descent. *Potential viewing audience:* • Path users • Boaties (elevated parts of path) • Dwellings: - at settlements - scattered along route • Drivers on local roads. • Users of Significant Recreation Areas and beach users • Drivers on coastal roads at Nuhiti and Tokomaru Bay.	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* A large part of the proposed route is not covered by the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • Anaura Bay CMA • Coastal ONF • Parts of W24, WP6 & WP7 (refer below) inside the coastal Environment Overlay *Terrestrial Areas of Significant Conservation* • WR 24 Anaura Bush • WP 6 Anaura Bay Scenic Reserve • WP 7 Waipare and Nuhiti Q Scenic Reserve (Protected Natural Area (Scenic Reserve)) *Scheduled Rivers and Streams* • Waipare Stream G15B • Mangahauini River G15B • Hikuwai River G15B *Protected watercourses G21* • Various – off Waiapu Road, associated with Hikuwai River *Significant Recreation Area* • Mouth of Waiotu Stream, at south end of Tokumaru Bay

[19] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[20] Refer to Appendix A in the LVA for the definition of visual amenity.
[21] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		vegetation/trees, and regenerating indigenous vegetation. *Awa/streams (crossings)* • Waipare Stream • Mangahauini Stream • Hikuwai River • Waiotu Stream • Other streams (unnamed on planning maps)			**GDC Proposed Regional Coastal Environment Plan** *Outstanding Landscape* Units 7 & 6 (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[22] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[23] contributed to by the natural and built landscape**	**Planning Overlays[24]**
Tokomaru Bay to Waipiro Bay	Unit 5 Koutunui Head to Koutunui Point Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Steep, large-scale vegetated coastal cliffs/headland (Koutunui Head/Point) (ONFL). Includes the largest catchment system under indigenous forest on the east coast. *Natural landform types* • Coastal cliffs rise abruptly from rocky shelves to steep bushed slopes and peaks of up to 500 metres in height. • Rugged, steep, and incised coastal ranges • Indented coastal edge. • Sandy beach/bay backdropped and enclosed by elevated, steep, vegetated coastal hills • Narrow coastal edge predominates north of Tokomaru Bay through to Waipiro • Rivermouth/estuary Landform is predominantly unmodified but includes extensive areas with complex road patterns on hills landward of Koutunui Headland. *Vegetation* • Predominantly vegetated slopes (indigenous) seaward of the proposed path • Cleared with regeneration occurring landward (west) of the proposed path	*Settlements/Key community facilities* • Beach Road settlement at Tokomaru Bay (northern end of the Bay). • Pakirikiri Marae, Waiparapara Marae and Te Ariuru Marae, at Tokomaru Bay • Waipiro – small coastal settlement but with extensive subdivision (largely undeveloped to date) having occurred, creating a detailed pattern of Lots (so development may grow). • Iritekura Marae at Waipiro *Other built form* • Tokomaru Bay Wharf • Open drains through dunes at Tokomaru Bay • Local Road e.g., at Tokomaru Bay and Waikawa Road at Waipiro Bay • Forestry Roads	*Key (defined/built) public look-out points:* None mapped. Localised headlands. Mt Hikurangi from open vantage points, local roads and SH35. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach and are predominantly enclosed by escarpment landform from inland areas. At either end of the day there may be open views up major river valleys towards inland areas. • Escarpment route provides predominantly enclosed views inside vegetated areas, possible with glimpses out at times providing elevated views of coastal areas and inland valleys. *Potential viewing audience:* • Path users • Boaties (elevated parts of path) • Dwellings: - at Tokomaru Bay - at Waipiro - other scattered dwellings at Waikawa Stream mouth	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Parts of the proposed route (most elevated and landward ridgetops) are not covered by the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Unit 5 (terrestrial + CMA) *Terrestrial Areas of Significant Conservation* • WR 19 Tauhiti (north end Tokomaru Bay) • WP 5 Waimahuru Bay Scenic Reserve *Scheduled Rivers and Streams* • Waiotara Stream G15A • Waipiro Stream G15B *Protected watercourses G21* • Various – landward of ONFL Unit 5, northern end *Significant Recreation Area*

[22] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[23] Refer to Appendix A in the LVA for the definition of visual amenity.
[24] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Small areas cleared for farming along the proposed route • Forestry inland. *Awa/streams (crossings)* • Waiotara Stream • Waikawa Stream • Waipiro Stream mouth • Waitakeo Stream • Other streams (unnamed on planning maps)		• Drivers on local roads at settlements (Tokomaru Bay and Waipiro) • Users of Significant Recreation Areas and beach users at Tokomaru Bay and Waipiro.	• Waikawa stream mouth (near Waipiro) • Waipiro Stream mouth • Waitakeo Stream mouth (Tokomaru Bay) **GDC Proposed Regional Coastal Environment Plan** *ONFL* Unit 5 (Refer to the separate column in this table).

Development Stage B					
Waipiro to East Cape					
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[25] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[26] contributed to by the natural and built landscape**	**Planning Overlays[27]**
Waipiro Bay to Reporua		*Notable natural features:* • Streams and regenerating indigenous vegetation *Natural landform types* • Coastal ranges – slopes at the coastal edge are often less steep then to the south, and include a more simple (less broken) broad top along the coastal edge with predominantly consistent elevation • Deeply incised river valleys through to the coast • Enclosed river valley with flats (Tohoratea River) • Bays and headlands • Narrow coastal edge • Broader coastal edge at bays and river mouths Landform is predominantly unmodified *Vegetation* • Predominantly vegetated slopes • Some areas cleared for pasture along the proposed route • Forestry *Awa/streams (crossings)* • Houhouounamu Stream • Te Maire Stream • Whareponga Stream • Wharekaha Stream • Tohoratea River • Other streams (unnamed on planning maps)	*Settlements/Key community facilities* • Small-scale development associated with marae • Taharoa Marae • Kiekie Marae • Whareponga Marae • Ruataupare Marae • Umuariki Marae • Reporua Marae *Other built form* • Roads – overall limited, including along the coastal edge, but present to connect marae inland and/or to the coast • Farm tracks/roads – limited but present through vegetated and cleared areas.	*Key (defined/built) public look-out points:* None mapped. Localised headlands. Mt Hikurangi from open vantage points, local roads and SH35. *Visual access from the proposed route:* Views will be predominantly from within densely vegetated areas in inland hills: • At either end clearer ridgetops from the coastal edge provide elevated and open coastal views. • Inland vegetated route predominantly provides enclosed views along the path. There may be more open views of occasional inland hill areas cleared for farming; there may be brief elevated views out at times, through/out of vegetation. *Potential viewing audience:* • Path users • Marae and scattered associated dwellings • Drivers on local roads • Users of Significant Recreation Areas	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* The route predominantly falls into the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • Coastal parts of WR16 (see below) *Terrestrial Areas of Significant Conservation* • WR 16 Mataahu *Scheduled Rivers and Streams* • Houhouounamu Stream G15A • Te Maire Stream G15A • Whareponga Stream G15A • Wharekaha Stream G15A *Protected watercourses* *Protection Management Area* WR15 Whareponga Stream (from online maps – inconsistent with G11 Schedule) *Significant Recreation Area* • Kopuaroa Stream • Whareponga Stream • Waitekaha Stream mouth **GDC Proposed Regional Coastal Environment Plan**

[25] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[26] Refer to Appendix A in the LVA for the definition of visual amenity.
[27] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					Outstanding Landscape (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[28] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[29] contributed to by the natural and built landscape**	**Planning Overlays[30]**
Reporua to Waiapu River + Reporua to Port Awanui (side trip)		*Notable natural features:* • Large-scale braided river (Waiapu) *Natural landform types* • Coastal ranges with valleys at different scales and steepness • Narrow coastal edge • Broad, large-scale estuary • Broad river flats with braided river Landform is predominantly unmodified *Vegetation* • A mix of vegetated steeped coastal ranges, and farmed valleys (pasture) • Coastal ranges include blocks of exotic forestry • Coastal ranges include regenerating areas • Braided river valley is predominantly in pasture, but with regeneration at river edges, on braided "islands" and in steep gullies to either side *Awa/streams (crossings)* • Waiapu River • Poroporo River • Other streams (unnamed on planning maps)	*Settlements/Key community facilities* • Tikitiki • Rangitukia • Scattered settlement either side of Waiapu River - along SH35 and Rangitukia Road, along Waiomatatini and Awanui Roads. • Waiomatatini (Porourangi) Marae • Te Horo Marae • Rahui Marae • Hinepare Marae • Putaanga Marae (off the proposed route) • Kaiwaka Marae (off the proposed route) • Karuwai Marae (off the proposed route) • Tikapa Marae (off the proposed route) • Kakariki Marae (off the proposed route) • Umuariki Marae • Mangahanea Marae • Uepohatu Marae • Te Aowera Marae • Karaika (Ngati Porou) Marae • Rauru (Taumata o Mihi) Marae • Tine toka Marae *Other built form* • Roads – to either side of the Waiapu River and into adjacent coastal hills • Farm/forestry tracks/roads	*Key (defined/built) public look-out points:* None mapped. Localised headlands. Mt Hikurangi from open vantage points, local roads and SH35 *Visual access from the proposed route:* • Elevated open views of the CMA from coastal hills. • Enclosed views of smaller scale river valley with farmed areas and complex vegetation patterns. • Open expansive views of broad braided river valley, farmed areas, mixed vegetation, and settlement, through to the coast. *Potential viewing audience:* • Path users • Boaties (potential views of elevated path) • Dwellings – at settlement nodes and scattered along roads through the Waiapu River valley • Drivers on roads adjacent to Waiapu River and on through to Port Awanui (Awanui Road) • Users of significant Recreation Areas along the Waiapu River	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* The proposed route is predominantly outside the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • Coastal parts of WP2 and WR8 (see below) • WR6 • Waiapu River Estuary (ONFL Unit 4) *Terrestrial Areas of Significant Conservation* • WP2 Ahikouka/Kuratau Conservation Area (route is proposed through) • WR8 Kuratau (route is proposed through) • WR6 Port Awanui (proposed route is close) *Scheduled Rivers and Streams* • Waiapu River G15A G15C • Poroporo River G15A *Protected watercourses* *Protection Management Area* *Significant Recreation Area* • Waiapu River (opposite side to proposed route)

[28] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[29] Refer to Appendix A in the LVA for the definition of visual amenity.
[30] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					• Others upstream from proposed route (including at an existing river crossing over Waiapu River) **GDC Proposed Regional Coastal Environment Plan** *ONFL* (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[31] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[32] contributed to by the natural and built landscape**	**Planning Overlays[33]**
Waiapu River to East Cape (Hautai Beach)	Unit 4 Waiapu River Estuary Unit 3 East Cape Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Hautai dune system (ONFL) • East Island (ONFL) • Otiki (Lighthouse Knoll) (ONFL) • Wide coastal plains/rock shelves • Numerous streams to the sea • Pohutukawa • Distant headlands *Natural landform types* • Estuary • Coastal ranges with deeply incised gullies • Shores with rock terraces extending out into the sea • Sandy shores and dunelands • Headland • Narrow coastal edge with steep escarpment • Wide coastal plain • Stream mouths • Offshore island Landform is predominantly unmodified *Vegetation* • Estuary with mixed exotic and indigenous vegetation, as typical to a farmed area with river/estuary.	*Settlements/Key community facilities* • Ohinewaiapu Marae *Other built form* • East Cape Light House • East Cape Campground • Roads – • Farm/forestry tracks/roads – through ranges, on coastal plains and through Hautai dune area	*Key (defined/built) public look-out points:* None mapped. Otiki - East Coast Lighthouse. Localised headlands. *Visual access from the proposed route:* • Inland route will include expansive, elevated, open views at either end, on emerging from densely vegetated inland hills, including potential views of Lighthouse Knoll and East Island, and Waiapu braided river valley. • Expansive open views across pasture towards the coast from the route at the Waiapu river mouth. • Expansive open views to the CMA from escarpment and at sea level across dunelands with low vegetation at Hautai. *Potential viewing audience:* • Path users • Boaties – possible distant views of elevated parts of the route • Dwellings – small number on the estuary/coastal edge at Rangitukia;	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Most of the proposed route is outside the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Unit 3 *Terrestrial Areas of Significant Conservation* • PR 19 Hautai (dune system at East Cape coasta edge) • PR16 Rangiata • PR17 Lighthouse Reserve *Scheduled Rivers and Streams* • Numerous at the proposed route *Protected watercourses* N/A *Protection Management Area*

[31] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[32] Refer to Appendix A in the LVA for the definition of visual amenity.
[33] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Coastal ranges predominantly in exotic forestry. • Indigenous vegetation typically on edges of forestry blocks. • Coastal plains are predominantly in pasture/farmed, but with mixed vegetation including indigenous regeneration. • Dunelands with high-value indigenous vegetation. *Awa/streams (crossings)* • Numerous important (scheduled) streams • Other streams (unnamed on planning maps)		- very small number (1 visible) in coastal hills along Rangitukia Road • Recreational users of the East Cape Campground • Drivers on roads nearby/adjacent to the proposed route	PR26 Taumataomiro – adjacent to proposed route PR11 Haha – adjacent to proposed route *Significant Recreation Area* N/A **GDC Proposed Regional Coastal Environment Plan** *Outstanding Landscape* Units 3 & 4 (Refer to the separate column in this table).

Development Stage D					
East Cape to Te Kaha					
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[34] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[35] contributed to by the natural and built landscape**	**Planning Overlays[36]**
East Cape (Hautai) to Te Araroa	Unit 3 East Cape Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Rock shelves extending into the sea • Numerous streams • A specific Pohutukawa in Te Araroa, Te Waha-o-Rerekohu is reputed to be one of the largest in New Zealand. (Refer to ONFL Unit 2). *Natural landform types* • Steep coastal slopes, cliffs, and deeply incised river valleys • Coastal shelf • Shores with rock terraces extending out into the sea • Sandy shores and dunelands • Stream mouth/river estuary Landform is predominantly unmodified *Vegetation* • Indigenous regeneration on steep coastal slopes • Mixed exotic and indigenous vegetation on the coastal shelf and at Awatere estuary *Awa/streams (crossings)* • Awatere River • Numerous important (scheduled) streams • Other streams (unnamed on planning maps)	*Settlements/Key community facilities* • Te Araroa – relatively sizable coastal settlement at the mouth of Awatere River. Comprises a number of streets, East Cape Road fronts the coastal dunes. • Hinerupe Marae at Te Araroa. *Other built form* • Bridge across Awatere River Estuary. • East Cape Road (no exit) follows the coastal edge.	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach, are expansive and take in unusual coastal rock shelves. • Coastal edge views are predominantly backdropped and enclosed from inland areas by escarpment landform, but with views possible at times along river valleys, e.g., at Awatere and Orutua. *Potential viewing audience/s* • Path users • Dwellings scattered along East Cape Road • Drivers on East Cape Road • Users of significant recreation areas • Users of East Cape Campground.	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Proposed route is inside the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Unit 3 • Awatere River Estuary • Coastal parts of PR35 and PR2 (refer below) *Terrestrial Areas of Significant Conservation* • PR35 (on slopes above the proposed route) • PR2 (on slopes above the proposed route) *Scheduled Rivers and Streams* • Awatere River, at Te Araroa • Numerous other streams descending from the ranges to the coastal edge (bridged or culverted under East Cape Road). *Protected watercourses* N/A *Protection Management Area* • PR35 (on slopes above the proposed route) • PR2 (on slopes above the proposed route)

[34] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[35] Refer to Appendix A in the LVA for the definition of visual amenity.
[36] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					Significant Recreation Area • Taikawakawa Stream mouth **GDC Proposed Regional Coastal Environment Plan** *Outstanding Landscape* Units 3 East Cape (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[37] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[38] contributed to by the natural and built landscape**	**Planning Overlays[39]**
Te Araroa to Wharekahika Bay	Unit 3 East Cape Unit 2 Hicks Bay, Te Araroa Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Coastal wetlands • Onepoto Bay (cove) • Haupara Point (headland separating Kawakawa Bay/Te Araroa and Wharekahika Point) *Natural landform types* • Bays/coves strongly enclosed by prominent headlands • Accreting beach at Onepoto Bay • Wide coastal shelf/broad river valley • Sandy beach • Dunelands • Stream mouth/river estuary Landform is predominantly unmodified *Vegetation* • Predominantly exotic (pasture) on flat, farmed coastal plains and river valley, with mixed exotic and indigenous at river/stream edges • Predominantly regenerating indigenous wetland/duneland at coastal edge at Te Araroa • Regenerating coastal hills with blocks of exotic forestry	*Settlements/Key community facilities* • Te Araroa – relatively sizable coastal settlement at the mouth of Awatere River. Comprises a number of streets, East Cape Road fronts the coastal dunes. • Onepoto Bay – small coastal cluster of dwellings. Comprises several streets. Dwellings front the beach. • Wharekahika/Hicks Bay – small settlement comprising a single road well-set back from the coastal edge + a road connecting inland. Dwellings front the dunes, well set back from the CMA. • Punaruku Marae • Tutua (Paerauta) Marae (off the proposed route) • Development scattered along SH35 *Other built form* • Roading associated with settlement • Farm/forestry tracks and roads	*Key (defined/built) public look-out points:* Te Araroa Road Scenic Lookout. Localised headlands. *Visual access from the proposed route:* • Views along SH35 northwards of Te Araroa are predominantly open across regenerating dunelands and farmed areas. They include complex vegetation patterns but do not take in the coastal edge or CMA. • At Haupara Point views are predominantly enclosed by hillside vegetation but occasional glimpses out are possible providing elevated coastal views. • Open elevated views of the coastal edge are possible on northwards descent on Te Araroa Road (Haupara Point). • All views on the proposed route will include SH35. *Potential viewing audience/s* • Path users • Boaties – possible views of proposed elevated route not using existing road	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Proposed route is inside or on the edge of the Coastal Environment Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Unit 3 *Terrestrial Areas of Significant Conservation* • PR6 Te Araroa – unique shingle dune system (route proposed through as new accessway) • PR1 Te Koau (continuous sequenced vegetation – terrestrial to sea) *Scheduled Rivers and Streams* • Karakatuwhero River • Punaruku Stream • Oruakarahea Stream • Te Kapa Stream

[37] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[38] Refer to Appendix A in the LVA for the definition of visual amenity.
[39] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		Awa/streams (crossings) • Karakatuwhero River • Punaruku Stream • Oruakarahea Stream • Te Kapa Stream		• Dwellings scattered along SH35 and at settlement nodes • Drivers on SH35 and local roads at Te Araroa and Wharekahika Bay (adjacent to the proposed route) • Users of significant recreation areas Provides opportunities for a mix of views with high visual amenity and variation including: • Sea-level views of wetland and dunes, with complex vegetation patterns • Views of beach/bay enclosed by prominent elevated headland • Elevated views taking in coastline, sea, and broad farmed plains with meandering waterways and backdropped by coastal ranges.	*Scheduled Waterbodies* Te Whare Wetlands G17 (Refer also to PR6 – route proposed through as a new accessway) *Protected watercourses* N/A *Protection Management Area* • PR6 Te Araroa – unique shingle dune system (route proposed through as new accessway) • PR1 Te Koau (continuous sequenced vegetation – terrestrial to sea) *Significant Recreation Area* • Karakatuwhero Stream mouth **GDC Proposed Regional Coastal Environment Plan** *ONFL* Unit 3 East Cape (Refer to the separate column in this table).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[40] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[41] contributed to by the natural and built landscape**	**Planning Overlays[42]**
Wharekahika Bay to Potaka	Unit 2 Hicks Bay, Te Araroa Unit 1 Cape Runaway to Matakaoa Point (distant to proposed route) Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan).	*Notable natural features:* • Matakaoa Point (visible but distant/off the path) • Matakaoa Ranges (ONFL) • Meandering waterway/inland valley *Natural landform types* • Wide coastal shelf/coastal plains + dunelands • Accretion associated with Wharekahika Stream (notoriously mobile) • Steep coastal and inland hills • Broad river valley	*Settlements/Key community facilities* • Potaka • Potaka School • Potaka Marae *Other built form* • Wharf Road at Wharekahika Bay • Wharf at the northern end of Wharekahika/Hicks Bay and derelict buildings further inland remain as testimony to the former uses of meat industry • Farm/forestry roads and tracks	*Key (defined/built) public look-out points:* None mapped. *Visual access from the proposed route:* • Views change in degree of openness/enclosure and complexity as the route moves along the river corridor through farmed areas in pasture, stream and variable riparian vegetation/pasture edge, and vegetated slopes with regeneration.	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* Covers proposed route at Wharekahika Bay only. Most of Day 14 is not covered by the Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Units 1 & 2

[40] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[41] Refer to Appendix A in the LVA for the definition of visual amenity.
[42] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Narrower stream valleys and stream confluences Landform is predominantly unmodified *Vegetation* • Indigenous regeneration on hills and in stream/river corridors including on flats • Areas of farmed pasture on river/stream flats • Areas of indigenous vegetation (remnant and regeneration) on valley flats and at river/stream edges *Awa/streams (crossings)* • Wharekahika River • Oweka Stream • Tapirau Stream • Makarae Stream • Waimate Stream	• Sparsely scattered built form along Wharekarika River • School at Pōtaka • SH35 at Pōtaka • Lottin Point Road from Potaka through to the east coast with Lottin Point coastal camping facilities. • Side track to Waiharere Falls (using SH35 from Wharekahika/Hicks Bay)	• Views are contained within the valley corridor for most of the route, taking in the inland side of coastal ranges. *Potential viewing audience/s* • Path users • Any scattered dwellings along Wharekahika Stream (likely very small in number, if any). • Dwellings (very small number likely) and school at Pōtaka • Drivers on Wharf Road and (more limited) on SH35 at Pōtaka • Users of the Oweka significant recreation area	*Terrestrial Areas of Significant Conservation* PR10 Hicks Bay Dunes • PP0 Hicks Bay Conservation Area (Duneland, wetland, pasture) • PR20 Forest (off the path/more distant) • PR36 (nearby to proposed path) Forest on Matakaoa Ranges *Scheduled Rivers and Streams* • Wharekahika River G15A • Oweka Stream G15A • Tapirau Stream G15A • Makarae Stream G15A • Waimate Stream G15A *Scheduled Waterbodies* • Hicks Bay Swamp G17 • Wharekahika Rivermouth G15C • Wharekahika Pond and Bush G17 • Wharekahika Swamp G15C, G17 *Protected watercourses* N/A *Protection Management Area* • PR30 Oxbow (route proposed through) *Significant Recreation Area* • Oweka Stream mouth **GDC Proposed Regional Coastal Environment Plan** *ONFL* Unit 1 Cape Runaway to Matakaoa Point (Refer to the separate column in this table).

Landscape catchments-destinations	Outstanding Natural Features and Landscape	Natural landscape -including features contributing to natural character[43] and visual amenity	Built/Community Landscape – including features contributing to natural character and visual amenity	Visual amenity[44] contributed to by the natural and built landscape	Planning Overlays[45]
Potaka to Whangaparaoa	**Gisborne District Council (GDC)** Unit 1 Cape Runaway to Matakaoa Point (distant to proposed route) Refer to the identified values in TRMP Schedule 11, Appendix 3.2 (Proposed Regional Coastal Environment Plan). **Opotiki District Council (ODC)** ONFL 2 Otamaroa Inland Refer to values identified in Chapter 13, Appendix 13.9.	*Notable natural features:* • Coastal plains at Whangapararoa River • Steep (distant) coastal ranges (Matakaoa Ranges) culminating in prominent headland at Whangaparaoa *Natural landform types* • Steep and rolling inland hills • Contained/narrower river valley with stream confluences • Broad river valley/coastal plains • Steep coastal ranges and headland • Dunelands *Vegetation* • Extensive indigenous forest and regeneration on inland hillslopes, and at river/stream edges/wet areas. • Blocks of exotic forestry. • Exotic pasturelands – smaller cleared areas alongside river/streams, and large expanses of open, farmed coastal plains. • Indigenous vegetation (remnant and regeneration) at dunelands at Cape Runaway. *Awa/streams (crossings)* • Wharekahika River • Te Purimu Stream • Mangapurua Stream • Whangaparaoa River	*Settlements/Key community facilities* • Whangaparaoa • Kauaetangohia (Whangaparaoa) marae • Scattered rural development along SH35 *Other built form* • Roading (SH35) • Forestry roads; Local/farm roads • Bridge across Whangaararoa River	*Key (defined/built) public look-out points:* None mapped. *Visual access from the proposed route:* • Views are contained within the valley corridor for much of the route, taking in the inland side of coastal ranges. • Views alternating from enclosure within vegetated slopes or more open views of areas cleared for farming. • Likely some elevated views at times of distant coast, on descent northwards. • Views include SH35. *Potential viewing audience/s* • Path users • Scattered dwellings along SH35. • Scattered dwellings where the proposed route deviates from SH35. • Dwellings at Whangaparaoa. • Drivers on SH35.	**Gisborne District Council (GDC), Tairāwhiti Regional Management Plan (TRMP):** *Coastal Environment Overlay* The proposed route is outside the Overlay. ***Note: natural character ratings are not assessed in the TRMP*** *Significant Values Management Area* • ONFL Unit 1 (distant) *Terrestrial Areas of Significant Conservation (Coastal)* • PR36 (nearby) Forest on Matakaoa Ranges *Scheduled Rivers and Streams* • Wharekahika River G15A • Te Purimu Stream G15 • Mangapurua Stream G15A *Scheduled Waterbodies* • Waenga Swamp G17 (well removed from the proposed route) *Protected watercourses* Wharekahika River *Protection Management Area* • PR22 Tapatahi (from GDC online mapping; not listed G11 Schedule). Proposed route crosses one part. *Significant Recreation Area* N/A **GDC Proposed Regional Coastal Environment Plan** *ONFL*

[43] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[44] Refer to Appendix A in the LVA for the definition of visual amenity.
[45] This column covers key planning layers relating to landscape, visual amenity, and natural character, noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					Unit 1 Cape Runaway to Matakaoa Point (distant) (Refer to the separate column in this table). **Opotiki District Plan** *Coastal Environment* The route passes into the defined Coastal Environment at Whangaparaoa *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* The route passes into the defined Coastal Environment at Whangaparaoa *Wetland* Proposed route passes through/adjacent to a number of these. (Not numbered/labelled in online mapping).
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[46] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[47] contributed to by the natural and built landscape**	**Planning Overlays[48]**
Whangaparaoa/Cape Runaway to Waihau Bay	**Opotiki District Council (ODC) (Operative)** ONFL 2 Otamaroa Inland (Hills above SH35 and proposed route) ONFL 19 Whangaparaoa dunefield, wetland and estuary	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Dunelands with wetland features and dynamic natural processes • Rocky coastline with beach embayments enclosed by headlands • Distinctive Pohutukawa at coastal *Natural landform types* • Beach; dunes • Surf breaks	*Settlements/Key community facilities* • Te Rangiharu Bay - small cluster of dwellings along SH35 at the coastal edge. SH35 fronts the coast. • Oruaiti Beach – small cluster of dwellings along SH35 at the coastal edge. SH35 fronts the coast. • Waihau Bay – coastal settlement node comprising two main roads with dwellings along each – SH35 and Orete Point Road. Orete Point Rd (proposed route) fronts a narrow coastal edge. Urupa along SH35	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the CMA over low vegetation and/or beach. Views are often open to inland areas, with distant views of vegetated inland ranges behind farmed areas.	**Opotiki District Plan** *Coastal Environment* The route passes into the defined Coastal Environment at Whangaparaoa *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan**

[46] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[47] Refer to Appendix A in the LVA for the definition of visual amenity.
[48] This column covers key planning layers relating to natural character and landscape, noting that matters such as cultural values, archaeology, heritage, coastal hazards, recreation, and detailed ecology matters are addressed by other specialists.

	ONFL 18 Oruaiti Beach, offshore rocks and Waikanapanapa cliffs (Proposed route passes through/on the edge of) Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Coastal Environment Plan** ONFL 38 Whangaparaoa Dunefields and Wetlands ONFL 37 Oruaiti Beach, offshore rocks and Waikanapanapa Cliffs Refer to values identified in Schedule 3.	• Rocky shoreline; offshore rocks • Headlands and embayments • Inland plateau • Inland coastal ranges *Vegetation* • Coastal duneland with intact cover of vegetation and including wetland • Mixed vegetation along the rocky coastal edge with pockets of native vegetation cover (predominantly Pohutukawa) • Cultivated plateau/terrace top paddocks • Indigenous forest on inland ranges *Awa/streams (crossings)* • Waitawake Stream • Waiotuma Stream • Wairuru Stream • Kawatahuri Stream • Numerous others to the coastal edge, unnamed on planning maps.	• Consistently scattered development along SH35 *Other built form* • Roading (SH35 + limited local/farm roads at some (typically larger) settlement nodes)	• Distinctive Pohutukawa at the coastal edge add to visual amenity. • Inland route provides views of coastal dunelands with low vegetation, backdropped by inland farmed areas and vegetated coastal hills. Views do not include the coast/sea (until descending to the coast) due to distance and intervening landform and vegetation. • Inland route views are generally contained rather than expansive and include SH35. *Potential viewing audience/s* • Path users • Settlement nodes and scattered dwellings along SH35 and/or the coastal edge. • Drivers on SH35.	*Coastal Environment Zone* A small section of the route moves inland of the Coastal Environment Zone (at Otamaroa - just north of the Whangaparaoa dunelands) *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Various. (Not numbered/labelled in online mapping). • Proposed route passes through/on the edge of these at Oruaiti Beach (adjacent to SH35). • Adjacent to Type A at the Whangaparaoa dunelands. *Wetland* A number of wetland areas (not numbered/ labelled in online mapping). **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • High Natural Character – Te Ahikehe Point to Cape Runaway
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[49] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[50] contributed to by the natural and built landscape**	**Planning Overlays[51]**
Waihau Bay to Whanarua Bay	**Opotiki District Council (ODC) (Operative)** ONFL 17 Raukokore River Mouth ONFL 16 Whanarua Bay	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Large scale river mouth + lagoon with dynamic/dramatic ongoing change • Braided river valley/floor • Rocky coastline with offshore rocks/islands	*Settlements/Key community facilities* • Waihau Bay (Orete Point Road) – strip of coastal residential-scale settlement off SH35. Road fronts a narrow coastal edge. • Whanarua Bay – a (relatively) sizable coastal settlement. Comprises a single road (SH35) with dwellings	*Key (defined/built) public look-out points:* None mapped. Orete Point. Localised headlands. Raukokere Point- church. *Visual access from the proposed route:* • Views from the coastal edge at sea-level have predominantly unimpeded outlook towards the	**Opotiki District Plan** *Coastal Environment* Proposed route is inside the overlay from Waihau Bay to Raukokore River, (mostly defined as Sensitive parts), then moves in and out of the coastal environment.

[49] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[50] Refer to Appendix A in the LVA for the definition of visual amenity.
[51] This column covers key planning layers relating to landscape, visual amenity and natural character noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

	ONFL 1 ONFL 1 Ikawhenua Forest and Urewera Forest Inland Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** ONFL 36 Raukokore River mouth ONFL 35 Whanarua Bay Refer to values identified in Schedule 3.	• Beach embayments enclosed by headlands • Coastal fringe of Pohutukawa *Natural landform types* • Rocky shoreline with rocky headlands and offshore rocks/islands • Sandy beach at embayments • Typically, wide gently sloping coastal platform between rocky coastal edge and coastal ranges • Braided river floor • River mouth – lagoon, rocky shore, dune feature • Coastal ranges *Vegetation* • Wetland at the coastal edge at Raukokore River mouth • Mixed vegetation along the rocky coastal edge with pockets of native vegetation cover (predominantly Pohutukawa) • Farmed coastal plains/river flats at Raukokore River • Indigenous vegetation along edges of Raukokore River • Native bush-clad hills west of Raukokore River *Awa/streams (crossings)* • Waitungenge Stream • Tukiotewaka Stream • Rangirewa/Maungapariri Stream • Waiare Stream • Kaiwakawe Stream • Waiongatiawa Stream • Raukokore River • Orima Stream • Awaawaroa Stream • Waiiti Stream • Others to the coastal edge, unnamed on planning maps.	(residential-scale Lots) to either side. Dwellings front the coastal edge. • Consistently scattered dwellings along SH35, coastal edge and associated with Marae – particularly from Waihau Bay to Raukokore River • Maru-o-Hinemaka Marae • Raukokere Church • Wairuru Marae • Maraehako Camping Ground *Other built form* • Roading (SH35 + limited local/farm roads at some (typically larger) settlement nodes) • Bridges (SH35) over Waiokaha Stream, Raukokore River and Waiiti Stream.	CMA over rocky edge, low vegetation and/or beach and are expansive. • On inland parts views include open river valley, open farmed areas, and parts enclosed by vegetation. • Headland crossing provides elevated views of the sea, often glimpsed through vegetation • Some parts include SH35; other coastal parts of the route include no roading. *Potential viewing audience/s* • Path users • Boaties – possible views of path alongside SH35 and as it deviates from the road and moves closer to the coastal edge • Settlement nodes and scattered dwellings along SH35 and/or the coastal edge. • Drivers on SH35.	*Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* Proposed route is inside the zone from Waihau Bay to Raukokore River then moves in and out of the coastal environment. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Types A and B feature along most of the route – along coastal edges and at Raukokore River mouth *Wetland* • At the coastal edge of Raukokore River mouth (away from proposed route) • Adjacent to SH35 in the Raukokore River plains (not labelled/numbered in online mapping) **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • High Natural Character – Raukokore River • High Natural Character – Rocky Shoreline Te Kopua to Papatea Bay
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[52] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[53] contributed to by the natural and built landscape**	**Planning Overlays[54]**

[52] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[53] Refer to Appendix A in the LVA for the definition of visual amenity.
[54] This column covers key planning layers relating to landscape, visual amenity and natural character noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

Whanarua Bay to Te Kaha	**Opotiki District Council (ODC) (Operative)** ONFL 1 Ikawhenua Forest and Urewera Forest Inland Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** N/A	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Kereu River (inside ODC ONFL) • Rocky coastline with offshore rocks/islands • Sandy beach embayments • Coastal fringe of Pohutukawa *Natural landform types* • Rocky shoreline with rocky headlands and offshore rocks/islands • Sandy beach/embayments • Typically, wide coastal platform between rocky coastal edge and coastal ranges • Braided river floor/stream valley • River/stream mouth • Coastal ranges *Vegetation* • Mixed vegetation along the rocky coastal edge with pockets of native vegetation cover (predominantly Pohutukawa) • Farmed areas and mixed exotic/indigenous vegetation along river flats/river edge at Kereu River • Native forest on coastal ranges • Strong horticultural patterns at Te Kaha, with hedged fields. *Awa/streams (crossings)* • Kereu River • Numerous streams from the ranges to the shoreline	*Settlements/Key community facilities* • Te Kaha – a (relatively) sizable coastal settlement concentrated at Te Kaha Point and along SH35, and with a few local roads to access horticultural fields. Dwellings front the coastal edge, adjacent to SH35. • Scattered small clusters of dwellings + more widely scattered dwellings along SH35 and the coastal edge • Dwellings/small, settled areas associated with marae • Maungaroa Marae • Te Kaha Marae • Pahaoa Marae (slightly off the proposed path – connected by road access) *Other built form* • Toilets and children's playground at Wharekura Point, near Te Kaha • Roading (SH35 + limited local/farm roads at some (typically larger) settlement nodes) • SH35 bridges crossing over Kereu River + other bridges/culverts at numerous streams	*Key (defined/built) public look-out points:* None mapped. Wharekura Point. Localised headlands. *Visual access from the proposed route:* • Coastal route views are predominantly back from the coastal edge, at times enclosed to SH35 by landform and vegetation, with occasional glimpses of the sea. • Views are predominantly elevated above the coastal edge and views of the sea are often through vegetation, including distinctive Pohutukawa. • Coastal route views are predominantly enclosed from inland areas by steep landform. • Coastal route views include SH35. *Potential viewing audience/s* • Path users • Boaties – possible views of path alongside SH35 and as proposed route deviates from the road closer to the coastal edge • Settlement nodes and scattered dwellings along SH35 and/or the coastal edge. • Drivers on SH35.	**Opotiki District Plan** *Coastal Environment* Proposed coastal route moves in and out of the coastal environment. *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* Proposed coastal route moves in and out of the coastal environment. Alternative inland route is outside the coastal environment. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Numerous areas of Type A along the coastal edge from Whanarua Bay to in front of Maungaroa Marae. *Wetland* N/A **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • High Natural Character – Rocky Shoreline Te Kopua to Papatea Bay

Development Stage F					
Te Kaha to Opotiki					
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[55] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[56] contributed to by the natural and built landscape**	**Planning Overlays[57]**
Te Kaha to Omaio	**Opotiki District Council (ODC) (Operative)** ONFL 15 Motunui Island and Associated Reefs ONFL 1 Ikawhenua Forest and Urewera Forest Inland Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** ONFL 34 Motunui Island and Associated Reefs Refer to values identified in Schedule 3.	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Rocky coastline with offshore rocks and reefs • Coastal fringe of Pohutukawa • Motunui Island and reefs *Natural landform types* • Rocky shoreline with offshore rocks/islands • Sandy beach • Surf breaks • Typically, wide coastal platform between rocky coastal edge and coastal ranges • River floor/stream valley • River/stream mouth • Raukūmara Ranges *Vegetation* • Mixed vegetation along the rocky coastal edge with pockets of native vegetation cover (predominantly Pohutukawa) • Farmed and horticultural areas including orchards • Mixed exotic/indigenous vegetation along river flats/river edge • Native forest on coastal ranges *Awa/streams (crossings)* • Haparapara River • Puremutahuri Stream • Maraetea Stream • Numerous streams from the ranges to the shoreline	*Settlements/Key community facilities* • Pariokaha • Otuwhare • Omaio • Consistent settlement/dwellings along SH35 and the coastal edge • Omaio Marae • Otuwhare Marae • Waiorore Marae *Other built form* • Roading (SH35 + limited local/farm roads at some (typically larger) settlement nodes) • Bridge (SH35) over Haparapara River • Transpower lines	*Key (defined/built) public look-out points:* None mapped. Pokohinu Point. Localised headlands *Visual access from the proposed route:* • In parts views are generally confined to along SH35 with scattered development, horticultural and farmed areas, and without views of the coast. • Parts provide open views of river valley with farmed areas and mixed vegetation. • Coastal views are often slightly elevated and back from the edge, with glimpses of sea through vegetation – until reaching Otuwhare/Omaio. • Closer views of beach and sea between Otuwhare and Omaio, across grassed areas/dunelands. *Potential viewing audience/s* • Path users • Settlement nodes and scattered dwellings along SH35 and/or the coastal edge. • Drivers on SH35.	**Opotiki District Plan** *Coastal Environment* Proposed route moves in and out of the coastal environment *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* Proposed route moves in and out of the coastal environment. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Types A and B on parts of the coastal edge • Type A at Hariki Beach, Maraetea Stream, Haparapara River mouth. *Wetland* N/A **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas)

[55] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[56] Refer to Appendix A in the LVA for the definition of visual amenity.
[57] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

					• Very High Natural Character – Haparapara River mouth • High Natural Character – Rocky Shoreline Okahu Point to Waiorore
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[58] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[59] contributed to by the natural and built landscape**	**Planning Overlays[60]**
Omaio to Houpoto	**Opotiki District Council (ODC) (Operative)** ONFL 1 Ikawhenua Forest and Urewera Forest Inland ONFL 13 Motu River Mouth ONFL 14 Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** ONFL 33 Orangoihuinui Point and Whitianga Bay, Whitianga Bay to Ohae Point ONFL 32 Motu River Mouth Refer to values identified in Schedule 3.	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Braided river valley (Motu River) alongside steep bush-clad hill range and subject to ongoing dynamic changes due to natural fluvial processes • Rocky shoreline with native vegetation cover • Raukūmara Ranges *Natural landform types* • Rocky coastline with rocky headlands and steep escarpment • Coastal platform/terrace between rocky coastal edge and coastal ranges • Sandy beach • Surf breaks (near Motu River Mouth) • Braided river floor/stream valley • River/stream mouth • Coastal ranges *Vegetation* • Wetland • Pasture on coastal terrace • Indigenous vegetation at steep coastal escarpment and slopes, and at rocky coastal edge at headlands, including pohutukawa • Mixed exotic/indigenous vegetation along river flats/river edge • Native forest on coastal ranges *Awa/streams (crossings)* • Motu River	*Settlements/Key community facilities* • Whitianga Bay – small-scale coastal settlement along SH35, associated with the marae. For the most part dwellings front the coastal edge. • Houpoto – small settlement node seaward of SH35 (road access). Form comprises a road fronting the coast with dwellings located on a small number of local roads between the coast and SH35. • Limited other settlement/dwellings along SH35 and at the coastal edge • Whitianga Marae • Maraenui Marae *Other built form* • Roading (SH35 + limited local/farm roads at some (typically larger) settlement nodes) • Bridge (SH35) over Motu River • Transpower lines	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Views from SH35 are generally enclosed at times by roadside vegetation. • Views may be fully enclosed by vegetation over headlands where the route leaves SH35. • Elevated coastal views are possible where the route follows SH35 - with views of sea at times seen through tall roadside vegetation. • Partial and open views from SH35 over river and wetland vegetation, at the sides of the Motu River. • Extensive open views over pastureland with streams/riparian vegetation, likely with views through to the coast – from low Motu River flats. • Closer views of beach and sea from sea-level at Omaio and at Houpoto. *Potential viewing audience/s* • Path users • Boaties – potential views of path on elevated coastal slopes • Settlement nodes and scattered dwellings along SH35 and/or the coastal edge. • Drivers on SH35.	**Opotiki District Plan** *Coastal Environment* The proposed route is predominantly inside the coastal environment. Its moves outside at the SH35 Motu River crossing. *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* The proposed route is predominantly inside the coastal environment. Its moves outside at the SH35 Motu River crossing. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Type A along much of the coastal edge • Type A at Motu River Mouth *Wetland* • At Motu River Mouth **Bay of Plenty Regional Policy Statement**

[58] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[59] Refer to Appendix A in the LVA for the definition of visual amenity.
[60] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Numerous streams from the ranges to the shoreline			*Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • Very High Natural Character – Motu River Mouth • High Natural Character – Rocky Shoreline Whituare Bay to Parinui and Whitianga Bay to Pokohinu Point
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape -including features contributing to natural character[61] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[62] contributed to by the natural and built landscape**	**Planning Overlays[63]**
Houpoto to Hawai	**Opotiki District Council (ODC) (Operative)** ONFL 10 Haumiaroa Point ONFL 11 Whituare Bay ONFL 12 Maraenui Escarpment (Whituare Bay) Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** ONFL 31 Maraenui Escarpment (Whituare Bay) ONFL 30 Whituare Bay ONFL 29 Haumiaroa Point Refer to values identified in Schedule 3.	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Steep coastal escarpment/headlands clad with native bush (Haumiaroa Point and Maraenui Escarpment) • Whituare Bay – wide bay with beach between headlands and a fdringe of mature pohutukawa *Natural landform types* • Rocky coastline with large-scale rocky headland and steep escarpment • Coastal platform/terrace between rocky coastal edge and coastal ranges • Sandy beach and dunes • Surf breaks • Broad river valley and river mouth • Deeply incised gullies/stream valleys *Vegetation* • Pasture on coastal terrace and river flats with a pattern of indigenous vegetation in lower areas and at river edges • Extensive coverage of indigenous vegetation at steep coastal escarpment and slopes • Fringe of mature Pohutukawa in parts • Exotic forest on inland slopes (inland edge of SH35) *Awa/streams (crossings)*	*Settlements/Key community facilities* • Hawai – small coastal settlement with dwellings along SH35 at Hawai River Mouth. SH35 fronts the coastal edge. • Scattered rural dwellings at Houpoto, along SH35 and fronting the coastal edge. • Hawai Marae *Other built form* • Roading: SH35 + farm roads – limited in number and location (located at either end of the Day/route) • Bridge (SH35) over Hawai River • Transpower lines	*Key (defined/built) public look-out points:* Maraenui Hill Lookout (along SH35). Localised headlands. *Visual access from the proposed route:* • Expansive, open, and close views of the CMA from beaches along the route. • Elevated coastal views are possible where the route follows SH35 over headlands/at the top of steep escarpment - the sea is visible often, seen through tall vegetation at the seaward side of the road. *Potential viewing audience/s* • Path users • Boaties – potential views of path on elevated coastal slopes • Settlement nodes/dwellings along SH35. • Drivers on SH35.	**Opotiki District Plan** *Coastal Environment* The proposed route moves in and out of the coastal environment as it moves from beach to coastal ranges. *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* The proposed route moves in and out of the coastal environment as it moves from beach to coastal ranges. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Type A in areas identified as ONFL, and in a single area on coastal plain at Houpoto. *Wetland* N/A

[61] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[62] Refer to Appendix A in the LVA for the definition of visual amenity.
[63] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Hawai River • Few other streams to the coast. Stream catchment is behind coastal landform, tending to drain to Hawai River.			**Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • High Natural Character – Rocky Shoreline Whituare Bay to Parinui and Whitianga Bay to Pokohinu Point
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape - including features contributing to natural character[64] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[65] contributed to by the natural and built landscape**	**Planning Overlays[66]**
Hawai to Opape	**Opotiki District Council (ODC) (Operative)** ONFL 1 Ikawhenua Forest and Urewera Forest Inland ONFL 9 Pehitariri Point ONFL 8 Haurere Point ONFL 7 Tarakeha Point (Opape) Refer to values identified in Chapter 13, Appendix 13.9. **Bay of Plenty Regional Council Regional Coastal Environment Plan** ONFL 28 Pehitariri Point ONFL 27 Haurere Point ONFL 26 Tarekeha Point (Opape) Refer to values identified in Schedule 3.	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Hauere Point • Pehitariri Point • Tarakeha Point (Opape) *Natural landform types* • Wide coastal shelf bisected in places by distinct and prominent ridges extending to the coast from the inland ranges and culminating in prominent headlands. • Broad river valley/coastal plains and river mouth, enclosed by elevated landform (ridges from inland). • Smaller-scale stream mouths at the coastal edge • Rocky coastline with embayments at different scales, enclosed by prominent rocky headlands. • Beach and dunes • Surf break (at Torere) *Vegetation* • Wetland (limited locations, but close to SH35 and the proposed route) • Pasture on coastal terrace and river flats with a pattern of indigenous vegetation in lower areas and at river edges	*Settlements/Key community facilities* • Torere – a (relatively) sizeable settlement around SH35, associated with farming and horticulture. Includes a small number of local roads inland and to dwellings on headland. Dwellings front the coastal edge. • Opape – small coastal settlement either side of off SH35. Includes local roads seaward of SH35. Dwellings front the coastal edge. • Opape (Te Pahau) Marae • Torere nui a Rua Marae *Other built form* • Roading: SH35 + local roads – mostly at settlement nodes • Bridge (SH35) over Torere River • Transpower lines	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Along SH35 at sea level there are expansive, open views of the CMA across areas in low vegetation (typically grassed foredunes), with views generally being some distance back from the coastal edge. • Generally open views of rural/farmed areas seen from SH35, with mixed roadside vegetation. • Where SH35 passes over headlands views are more enclosed – confined either by landform or vegetation. • Expansive open views of the CMA from beaches along the route, away from SH35. *Potential viewing audience/s* • Path users • Boaties – potential views of path on elevated coastal slopes • Settlement nodes/dwellings along SH35. • Drivers on SH35.	**Opotiki District Plan** *Coastal Environment* The proposed route moves in and out of the coastal environment. *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* The proposed route moves in and out of the coastal environment. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B* • Type A at headlands (ONFL areas • Type B in one location on coastal hills *Wetland* • Adjacent to SH35 (seaward) near Hauere Point

[64] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[65] Refer to Appendix A in the LVA for the definition of visual amenity.
[66] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		• Extensive coverage of indigenous vegetation at steep coastal escarpment and slopes • Indigenous vegetation on headlands *Awa/streams (crossings)* • Torere River • Ngawaikui Stream • Waiohoata Stream • Numerous other streams to the coast.			• Adjacent to SH35 on coastal plain near Torere • On plains near the coastal edge at Opape **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • Very High Natural Character – ONFL headlands/points
Landscape catchments-destinations	**Outstanding Natural Features and Landscape**	**Natural landscape - including features contributing to natural character[67] and visual amenity**	**Built/Community Landscape – including features contributing to natural character and visual amenity**	**Visual amenity[68] contributed to by the natural and built landscape**	**Planning Overlays[69]**
Opape to Opotiki	**Opotiki District Council (ODC) (Operative)** N/A **Bay of Plenty Regional Council Regional Coastal Environment Plan** N/A	**Refer to Planning Overlays for mapped areas of natural character.** *Notable natural features:* • Coastal dunes • Waiaua River *Natural landform types* • Duneland • Small waterbodies associated with wetlands in the duneland • River stream mouth and corridor • Small sand spit and vegetated "island" at Waiaua River Mouth • Wide coastal shelf/coastal plains • Distant ranges (inland) • Surf break (at Opotiki) *Vegetation* • Indigenous vegetation at wetland, dunes and at stream/river edges • Predominant exotic grasses in dunelands • Mixed exotic and indigenous vegetation along SH35, including along the foredune (seaward of SH35) and on nearby inland slopes • Farmed pasture • Horticulture (inland of SH35)	*Settlements/Key community facilities* • Omarumutu • Tirohanga • Tablelands • Omarumutu Marae • Waiaua Marae (inland off the proposed path) • Te Rere Marae (inland of Opotiki, off the proposed path) *Other built form* • Roading: SH35 + local roads – mostly at settlement nodes; including in dune areas (seaward of SH35) • Defined foot-track through the duneland • Small footbridges over streams in the duneland • Sealed public carparking area with associated structures and amenity buildings (fences/barriers; public toilets) in the foredune at Hikuwai Beach (seaward of SH35) • Bridges (SH35) at Tirohanga and Waiaua River • Transpower lines (distant, inland of SH35).	*Key (defined/built) public look-out points:* None mapped. Localised headlands. *Visual access from the proposed route:* • Open/unimpeded, expansive views of the CMA over low vegetation (vegetated foredune areas); and with open/unimpeded views inland towards farmed areas, scattered settlement, and distant inland ranges. • Views are predominantly away from SH35 (although vehicles will likely still be visible in views towards inland areas). • In parts where the route is along SH35 views are removed from the coast and take in open rural areas predominantly in pasture to either side of the route (close to Opotiki). *Potential viewing audience/s* • Path users • Settlement nodes/dwellings along SH35. • Drivers on SH35 and local roads at settlement nodes.	**Opotiki District Plan** *Coastal Environment* The proposed route is inside the coastal environment. *Outstanding Landscape* Refer to separate column. *Scheduled Rivers/streams/waterbodies* None labelled in online mapping *Waahi Tapu Sites* At Waiaua River Mouth **Bay of Plenty Regional Coastal Environment Plan** *Coastal Environment Zone* The proposed route is inside the coastal environment zone. *ONFL* Refer to the separate column in this table. *Indigenous Biological Diversity Area (IBDA) – Types A & B*

[67] Refer to Appendix A in the LVA for the definition of natural character used in this assessment.
[68] Refer to Appendix A in the LVA for the definition of visual amenity.
[69] This column covers key planning layers relating to landscape, visual amenity and natural character and noting cultural values, archaeology, heritage, coastal hazards, recreation, and ecology matters are addressed in detail by other specialists.

		Awa/streams (crossings) • Waiaua River • Numerous streams through the dunelands to the coast.			• Type A at Waiaua River Mouth and dunelands between Opape and the river (at the proposed path). • Type B across dunelands frontage with the coast from Waiaua River Mouth to Opotiki. (at the proposed path). *Wetland* • A number of small, identified wetlands between SH35 and the proposed route, including adjacent to SH35. (Not numbered/labelled on planning maps). **Bay of Plenty Regional Policy Statement** *Coastal Environment Natural Character* (Mapping combines CMA + terrestrial areas) • High Natural Character – Omarumutu Dunes (over parts of the proposed path)

Te Ara Tipuna.

Landscape Management Plan. Appendix D

Final - July 2023

Tatarahe Cliffs - Tolaga Bay, Gisborne District.

Isthmus.

Client Name:	HRM & Associates**.**
Project Name:	Te Ara Tipuna
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CONTENTS

1.0 PURPOSE

1.1 This Landscape Management Plan (LMP) is an Appendix to the Assessment of Landscape and Visual Effects (LVA) and forms part of the suite of documents to be submitted and conditioned with the consent application for Te Ara Tipuna. The LVA, LMP and Construction Management Plan (CMP)[1] should be read together. The LVA provides examples and specifics that will assist detailed design to further develop and realise this LMP, and the CMP. The LMP includes:

a) The landscape, visual amenity, and natural character mitigation measures, as agreed to form part of the overall Project description, at lodgement. These measures are assumed to form part of the Proposal - along with the summary Project description, lodged drawing set, agreed mitigation measures in the wider set of Management Plans and User Passport and proposed Kaitiaki Guide. These 'baked in', assumed, design measures are coded as **mitigation** below. They relate to the core components of the Project that have been developed to a concept stage. They are assessed as part of the Landscape, Visual and Natural Character Assessment (LVA).

b) In addition, the LMP provides guidance relevant to the future stages of the Project and components, yet to be developed to a concept stage. These **future stage recommendations** are intended to help manage the potential for additional adverse effects and opportunities for further benefits, that are likely to be associated with the future stages of Te Ara Tipuna. These measures are not assessed in the LVA, and these concepts are not required to confirm the assessment findings at this stage of the Project.

1.2 The LMP is developed from and is in line with, the findings and conclusions of the LVA for the Project.

1.3 The LMP complements and ties into the agreed mitigation measures and future stage recommendations made by other related specialists on the Project, particularly with regards to cultural and social impacts, archaeology, ecology, coastal hazards, traffic safety engineer and Geotech.

[1] As discussed with the Project team, the CMP will include a responsive approach to the application of path types and other 'built' components, such as segregation markers, stripping and compaction and use of a gravel surface. The CMP will require strategic 'functional need' principles (such as ground condition, ensuring clear cues for movement, safety, and response to landowner feedback), to confirm use of these elements. This responsive approach is to ensure adverse landscape, visual amenity, and natural character effects, resulting from additional temporary works and 'built' structures, can be minimised. Where possible, the standard type of path, with a grass surface and simple sightline wayfinding markers, will apply. The CMP document has been developed through discussion with the wider Project team; however, it was not available for detailed review in preparation of the LVA or LMP.

1.4 The LMP is for inclusion in consent conditions for Te Ara Tipuna. In this way the LMP will support the findings of the LVA and provide certainty to consenting authorities on the landscape, visual amenity, and natural character effects of the Project.

1.5 The LVA for Te Ara Tipuna assumes that the LMP (and the site responsive CMP) will form part of consent conditions for the Project and will be a matter to consider in compliance.

Supporting broader project goals

1.6 The overarching purpose and objectives of Te Ara Tipuna are set out in the 2021 Proposal Document 2021 (as are included in the LVA Introduction 2.0). In summary, these derive from the role of Te Ara Tipuna as a legacy Project, to restore and regenerate the rohe of Ngati Porou and Te Whanau-a-Apanui, for those who live and work in the rohe today, and whanau wishing to return.

1.7 The LMP supports the broader Project goals through managing adverse effects on landscape, visual amenity, and natural character values. It also supports the objective to prioritise and uplift local skills and knowledge through all stages of the Project including identifying specific landscape related opportunities for local businesses in construction phases.

2.0 LMP STRUCTURE

2.1 The LMP is appropriate to the stage of the Project. Along with the assumed, or 'built in' mitigation measures and future component recommendations, it sets out important process matters to guide the Project's detailed design stage, including the requirement for more detailed landscape drawing sets and specification.

2.2 The LMP sets out **mitigation** design methods in relation to:

- **Natural Landscape** (refer to Section 3.0) – methods to manage adverse effects on landform, vegetation, streams, and other sensitive natural environments.
- **Built/ Community Landscape** (Section 4.0) – methods to manage adverse effects from built components of the Project including the path types, signage, retaining structures, bridges, and safety barriers.

2.3 Future stage recommendations (not assessed in the LVA) for both natural and the built/community landscape are addressed in Section 5.0.

2.4 Input and, or specific responsibility for the Project Landscape Architect to confirm the detailed design of both the mitigation and future stage measures is recommended, given their relevance to both adverse and potential positive landscape, visual amenity, and natural character effects.

3.0 NATURAL LANDSCAPE[2] - MITIGATION

3.1 Earthworks - mitigation

3.1.1 Cut/Fill

- *Construction Management Plan (CMP)*

A CMP address all construction phases/sections of the Project including required methods to avoid/manage adverse effects from earthworks. The CMP sets out approach to detailed design earthworks that will be used to achieve the following (noting, other this is not an all-inclusive list, other matters to be addressed in the CMP will be dust control, traffic management, construction noise)

- *Location*

Align the route to avoid cuts where successful natural regeneration of plant cover is unlikely. Where cuts in such areas cannot be avoided, the earthworks design is to include input from the Project Landscape Architect and Ecologist and is to consider: the long and cross section; tie into the natural contours; and final formation to optimise natural regeneration.

- *Height*

Align the route to avoid cut or fill over the permitted height in the coastal environment and in Outstanding Natural Features and Landscapes.

Align the route to avoid cut or fill over the permitted height in more sensitive areas outside the coastal environment (such as on elevated slopes where there could be increased visibility).

[2] A CMP has been developed to address all construction phases/sections of the Project including required methods to avoid/manage adverse effects in the natural landscape. The CMP sets out a site/context-responsive approach to detailed design of the matters addressed in this section (noting, this is not an all-inclusive list, other matters to be addressed in the CMP will be dust control, traffic management, construction noise etc).

As a general guidance note, the earthworks design is to include input from the Project Landscape Architect and Ecologist and consider: the long and cross section; tie into the natural contours and final formation to encourage natural regeneration and enable mitigation planting (on fill batters).

- *Slopes*

Fill batters (unretained slopes formed by earth worked material) should be gently sloped to support plant growth, generally no more than 1m vertical: 3m horizontal, avoid benches and tie into natural contours. Where fill batters with steeper slopes cannot be avoided the fill batter design is include input from the Project Landscape Architect, Geotech and Ecologist to the long and cross section, tie into natural contours and final formation to encourage natural regeneration and options for mitigation planting.

Cut batters (unretained slopes) the slope of cut batters will vary depending on localised substrate stability (natural angle of repose). Steeper slopes will be appropriate to avoid additional indigenous vegetation removal and to reduce the overall visual dominance of the earthworks. The typical slopes for cut faces will be confirmed in detailed design with input from the Project Landscape Architect, Geotech and Ecologist and consider measures to enhance natural regeneration reduce the overall footprint of the earthworks. Bench cuts are to be avoided as are crest drains, rock fall drape and shot crete.

- *Natural regeneration and mitigation planting*

All cut or fill batters should be rehabilitated long term with appropriate plant species, to improve slope stability and to tie into the surrounding vegetation patterns. Over time, the intention should be that they contribute to biodiversity and habitat continuity. Rehabilitation can be achieved by measures to encourage natural regeneration of indigenous species and, or mitigation planting. Rehabilitation is distinct from and in addition to construction stage erosion and sediment control measures, which will also apply to all cut and fill slopes (and is addressed in the draft Construction Management Plan).

Cut batter slopes should be designed to support natural regeneration through both the slope and final finish, avoiding smooth faces and vertical channels (which encourage erosion). Planting on the cut face is unlikely to be achieved without complicated safety measures, and in practice is less successful, given the steeper slopes required (to avoid additional footprint).

Mitigation planting to an area above the cut slope, on natural ground, to establish a seed source, should be prioritised where this can be done safely and does not require additional indigenous vegetation removal.

Indigenous plants used for this 'cliff- top' planting should be ecosourced and the detailed design and planting methods confirmed with input from the Project Landscape Architect, Ecologist and Geotech/Earthworks design team.

Permanent grassing of cut slopes is appropriate where the cut heights are low, generally under 2m, the substrate is suitable, and the surrounding landscape is in pasture i.e., this will tie into the existing landscape patterns.

Fill batter slopes should be designed to support natural regeneration and mitigation planting. Indigenous plants for mitigation should be ecosourced and the detailed design and planting methods including final formation of the fill batter slope and application of topsoil or site won growing media should be confirmed with input from the Project Landscape Architect, Ecologist and Geotech/Earthworks design team.

Permanent grassing of fill slopes is appropriate where the fill heights are low, generally under 2m and, or the surrounding landscape is, and will continue to be, in pasture. The aim of rehabilitation planting is not to create an enclosed corridor, which would sever the path from the surrounding landscape. The mitigation planting is to reinforce the wider vegetation patterns in the landscape, including what would have been typical historically, and to support a varied experience. In practice this will mean that some sections of the path will be enclosed by vegetation and others will be relatively open and offer views to distant landmarks, adjacent built of natural features and of the coast.

- *Retained Slopes*

Where cut/fill slopes may need to be retained over short sections using steeply sloped mechanically stabilised earth (MSE) systems, which can be grassed or planted or vertical retaining walls with, for example, timber or steel posts and timber or concrete facing. For the purpose of the LVA, it is assumed that there will be limited need for retaining walls in the Project. That is, the extent and detailed design of retained slopes is still be confirmed and this will be important to address in the next stages. However, for the purpose of this consent and the scope of the LVA, the effects would not be sufficient to modify the overall findings and conclusions.

3.2 Drainage

Ensure appropriate drainage of earth-worked areas to avoid adverse effects on hydrology and habitat patterns including in nearby/ adjacent areas identified as ONFL and existing streams, rivers, wetlands, and erosion prone natural features.

3.3 Vegetation

3.3.1 Removal

- *Construction Management Plan (CMP)*

A CMP has been developed to address all construction phases/sections of the Project including required methods to avoid/manage adverse effects from vegetation removal on adjacent flora, fauna, awa and the coastal marine area (CMA). The CMP sets out removal (and construction) methods, including in relation to:

- Removal of exotic and indigenous vegetation.
- Re-use of removed vegetation (refer below).
- Vehicle access for the works.
- Erosion and stormwater run-off management.
- Storage of material to be transplanted following path construction.
- Timing.
- Methods to manage construction effects on local communities/existing dwellings.

3.3.2 Re-use of removed vegetation

The CMP (refer above) provides for:

- Chipping of removed vegetation, where suitable and avoiding inclusion of weeds, for re-use as mulch in new planting areas.
- Provision of timber to landowner any trees of significant size which are required to be removed, where that is wanted.
- Re-use of larger logs and branches on site for habitat creation, in consultation with landowner/s and the Project Ecologist where that is practicable and is wanted.
- Assessment to identify where and what species of indigenous plants can be removed and replanted. This is to include appropriate holding areas and conditions to ensure good survival rates once transplanted to new areas.

3.3.3 Planting

- *Ecosourcing*

All new indigenous plants are to be eco-sourced from the appropriate ecological district, as advised by the Project Ecologist.

- *Planting strategy and detailed planting plans*

A planting strategy including general plant typologies and detailed planting plans are to be developed as part of the next stage. These plans will confirm areas appropriate for grassing, landscape, and ecology mitigation planting (and ecology offset planting if required), or that are proposed for required enhancement planting (beyond the earth worked areas) for example, to buffer existing areas of remnant bush or to support existing wetland areas.

Patterns of planting are to generally mimic natural regeneration – using groups of species with staggered transitions. Deliberate grouping of plant species and the use of imported topsoil and mulched planting beds may be considered appropriate in some locations, for example near community destinations, or aligned with higher specification path types.

The species used along the route will vary in response to microclimate, soil conditions and the objective to mimic, or add to, natural patterns of indigenous vegetation and to support the overall identity and narrative of Te Ara Tipuna.

The plant strategy should set out the general typologies of plants for each area and the sequencing of these along the route to support successful establishment and identity. The detailed planting plans should follow this, as are required to progress procurement and implementation, along with the plant specification.

- *Plant Species*

Species lists for each mitigation or enhancement planting areas are to be developed by the Project Landscape Architect and Ecologist alongside iwi and landowner/s with inclusion of local/traditional knowledge particularly in relation to taonga species or species appropriate for harvesting as mahinga kai, rongoa or other traditional purposes (traditional health/medicine/art).

Toxic plants should be avoided, considering use by horses.

The use of exotic species may be considered is some locations to support communities. For example, including possible food forests near schools, kainga, marae and other community. destinations.

Crime Prevention Through Environmental Design (CPTED) principles are also to be considered in the planting strategy. For example, to provide good sightlines along the path and avoid areas of possible entrapment.

- *Planting Specification*

A Planting Specification is to be provided to the planting contractor with the detailed plantings plans and species lists, in line with best practice.

The specification will include requirements for plant procurement, site preparation, implementation and maintenance and management for an extended defects and liability period of at least 4 years, linked to clear requirements for successful plant establishment. For example, %coverage and plant heights for each planting type.

The standard P39 NZ Transport Agency specification for landscape can be used a reference and base for the planting specification, or an equivalent agreed council standard. Standard specifications will need to be adapted to provide for a natural regeneration approach and the objectives of the Project. This will include the use of site won topsoil for most areas of planting, rather than imported topsoil, as appropriate to a natural regeneration method.

The specification will be supported by the long term Kaitiaki Management Plan i.e., to care for the planted areas (and likely additional planting), in perpetuity.

- *Sourcing*

Iwi groups are to be consulted on appropriate sourcing for all new planting and including consideration of landowners, local communities, and businesses in the first instance for provision of plants.

All plants are to be eco-sourced from the appropriate ecological district.

Early planning is recommended to allow for growing-on of plants needed for each construction Stage, as indicated by the construction programme, detailed planting plans and species lists.

Species lists for each Stage should be developed 2-3 years prior to construction, (as possible), to allow time for collection of seed, growing-on and provision of the required plants.

In general, smaller grade plants planted in staggered groupings, will be appropriate for mitigation, offset (if required for ecology effects) and enhancement planting. Smaller grade plants are more likely to be successful where a natural regeneration approach is being used.

- *Stock Browsing, Predator and Weed Control*

A stock browsing, predator and weed control strategy is to be developed with input from landowners, iwi, and territorial authorities to ensure successful establishment and ongoing survival of planted areas through the specification and Kaitiaki Strategy. This is to include consideration of local businesses in the first instance for provision of such measures including through the defects and liability period and in ongoing management as set out in the Kaitiaki guide.

3.4 Hydrology

3.4.1 Awa/stream crossings

- *Location*

- Detailed design is to locate natural (non-bridged) crossings at logical points which reflect "desire lines" for users; connect to existing paths and roads into community nodes as appropriate; and provide for safety.

- *Number*

- Align the route as possible to avoid multiple crossings over streams.

3.4.2 Wetlands

- Align the route to provide appropriate offset from wetland areas, as identified by the Project Ecologist, or, as a second preference, on existing tracks through wetlands.

- Where new or existing tracks are proposed through wetland areas, detailed design will consider the use of low impact pathway typologies such as a boardwalks and additional mitigation/enhancement planting, to reduce impacts on hydrology or improve the existing condition to enhance wetland areas.

3.4.3 Water quality

- Avoid significant earthworks adjacent/close to awa, wetlands, river mouths and estuaries. Where adjacent/close earthworks cannot be avoided provide for suitable methods to avoid,

remedy, or mitigate adverse effects (including through the development of the Construction Management Plan including iwi and specialist input).

3.4.4 Patterns and connections - including culverts

- Align the route and detailed design to avoid further obstruction or impact on all waterways including permanent, ephemeral, and intermittent streams.

- In addition to bridges, use oversized culverts that form a natural base, to ensure hydrology patterns are maintained including for fish passage.

4.0 BUILT /COMMUNITY LANDSCAPE [3] - MITIGATION

4.1 Structures

Structures proposed for the Project include built components that have been developed to a concept stage: path types and crossings (as shown in the Conceptual Document and included in the AEE description) or are proposed to be located along the route i.e., new bridges, clip on bridges and new toilets/shelter (for which concept design is yet to be completed). These components are included in the LMP, as assumed mitigation, to the extent that they can be considered in this consent phase of the Project (as a concept design or by location only). The measures addressed in the LMP complement the specific findings of the LVA.

4.1.1 Paths

- *Alignment*

Confirm the alignment of the path to provide for:

- logical connections into existing local walkways, roads and settlement nodes, and access to the coastal edge.

[3] A CMP has been developed to address all construction phases/sections of the Project including required methods to avoid/manage adverse effects in the built landscape The CMP sets out a site/context-responsive approach to detailed design of the matters addressed in this section (noting, this is not an all-inclusive list, other matters to be addressed in the CMP will be dust control, traffic management, construction noise)

- safe crossing points over SH35 and safe transition onto/off local road reserve.

- likely desire lines (to discourage walking/cycling/horse-riding off the track).

- alternative routes where needed to provide access during high tides which will limit adverse effects on sensitive environments such as dune and wetland areas.

- Crime Prevention Through Environmental Design (CPTED) principles are also to be considered. For example, to provide good sightlines along the path and avoid areas of possible entrapment.

Align the path to avoid:

- Significant earthworks and vegetation removal (relating to both location and scale),

- Multiple stream crossings and impacts on significant or sensitive natural features (refer above to Section 3.0).

- Effects on existing dwellings, as possible (such as privacy effects). Noting this will be a focus on community engagement and property easement agreements.

- *Width*

The path types are to meet at least minimum standards for width, as appropriate to its use (e.g., shared pathway – horse-riding, cycling and walking). The standards for typical paths are shown in the typical cross sections lodged with the consent (and to be refined alongside a spatial strategy for their site-specification application, in the CMP).

- *Path typologies*

Refinement of the path typologies, as lodged at consent, is recommended to confirm the sequencing, transitions, and cues for use.

Path typologies are to provide for appropriate cues for safety and user behaviour while avoiding, as a typical treatment, vertical segregators and roading type elements. These may be required in some locations, for example, in areas where conflict between users is likely, at the start and end of days, near carparks etc and roading elements will be required in road reserves, for example at crossings. Non typical use of these elements is best confirmed in detailed design. The path typologies use in Te Ara Tipuna should avoid additional structures and elements that are typical of a more urban and roading context.

Path typologies are to be low-key, generally following existing tracks (where away from formed roads) with simple wayfinding, sightline markers and grass surface. The edges of the path should not be delineated, or the ground compacted, or gravel applied, as a standard treatment. These measures may be required in response to construction or operation constraints including requirements of landowners, to ensure clear cues for safety and, or as resilience measures. Similarly, the use of boardwalk type paths may be appropriate in some locations, for example, to help protect wetland areas or to uplift the mana and identity of an area. These matters are best confirmed through detailed design (through an overall path type spatial strategy) and in response to further site investigation, in line with the responsive approach included in the CMP.

The management and protocols around vehicle use on the paths for maintenance, and as an alternative route to SH35, is yet to be developed. This will be supported by the Te Ara Tipuna User and Kaitiaki Guides.

Priority use for cycling, walking and horse riders should be provided on all sections of the path, with consistent clear measures used to exclude everyday vehicle use including consideration of locations where timber or boulder bollards, gates and styles and additional fencing may be appropriate.

For the purpose of the LVA, it is assumed that regular use of the paths by vehicles including motorbikes and 4 wheelers is avoided. In some areas it may be appropriate for the path will be used by existing landowners e.g., farm vehicles (and while not a landscape matter, the signage strategy to be developed can support risk management, along with the User Guide).

4.1.2 Bridges

Bridge typologies are to provide for the variation in the scale of crossings, shared use including by vehicles where required.

The bridge structure typologies, are to provide for:

- Simple clean lines and material palette; of steel, concrete, and timber
- Road bridge types that are consistent with existing structures and as are required by councils and the New Zealand Transport Agency for SH35.
- Non-vehicular bridges that are consistent with existing farm type structures- simple timber and concrete stock type bridges.

- Avoid multiple stream crossings and impacts on significant or sensitive natural features (refer above to Section 3.0).

4.1.3 Fencing/safety barriers

A fencing strategy shall be developed with property owners to ensure the successful establishment of all mitigation (and required offset) planting. Typical farm type fencing should be used as appropriate to the context used such as post and wire fences.

4.1.4 Culverts

Bridges should be used as a preference, to provide access across streams to maintain natural character and natural hydrology patterns and connections. Where culverts are required, options for oversizing to achieve a naturalised base and fish passage, should be considered.

5.0 FUTURE STAGE RECOMMENDATIONS

The following recommendations are included in the LMP to help manage the potential for additional adverse effects and opportunities for further benefits, that are likely to be associated with the future stages of Te Ara Tipuna. These measures are not assessed in the LVA, and these concepts are not required to confirm the assessment findings at this stage of the Project.

5.1 Earthworks

In the rehabilitation of fill batters - site won topsoil is preferred to encourage natural regeneration. The stripping, handling and storage requirements needs to be considered in detailed design, to ensure adequate areas are set aside and the site won topsoil is kept in good condition (refer above to specification guidance).

5.2 Vegetation

Larger grade plants, and groups of one plant species, should be considered, as appropriate near communities to support the overall identity (see below) and wayfinding strategy – groupings of trees or particular plants can be used as markers or tohu.

The need for larger grade plants, for example to achieve site specific screening, may also be identified in detailed design, and through engagement with communities and property owners.

Fencing measures will need to be considered to protect areas of planting.

5.3 Structures

In *future stages*, other built elements will be confirmed through concept and detailed design including the form and finish of the new bridges, clip on bridges, toilets/shelters, any fall from height barriers required, pause points/rest areas and carparks. Future stage recommendations are provided for these elements along with the development of an overall materials palette and Structure Typology and Spatial Arrangement Plan to guide implementation. Additional, built components could be integrated within this plan that enhance Identity, the expression of cultural values and narrative including mahi toi and other forms of interpretation and wayfinding signage. As the concepts for these other likely built components have yet to be developed, or their spatial arrangement considered, they have not been assessed in the LVA. However, they are important to address at a high level in the LMP, as they could result in additional adverse landscape effects and have the potential to result in further positive effects where they are designed sensitively and in response to existing values and context.

5.3.1 PathS

- *Width*

In locations where space is constrained and the minimum widths cannot be achieved, detailed design should consider alignment changes and use of short sections of retaining structures to limit the extent.

- *Path typologies*

The sequence of path types used within the SH35 and local road reserves and in other, off-road areas (farmland, forestry, indigenous vegetation) should complement and help interpret the existing natural and built landscape patterns and support the wider identity and wayfinding strategy for Te Ara Tipuna. For example, boardwalks could be used to mark the arrival/departure at major bridge crossings, helping to uplift the mana of the awa, river. They would also be appropriate over wetland and dune areas, to maintain and enhance their values. The use of gravel on the path would have a logic where it responds to steep gradients and is required to support emergency vehicle access, such as is proposed between Tokomaru Bay and Ruatoria, if SH35 is closed for repairs due to flooding damage.

5.3.2 Bridges

The bridge design should be refined to complement the overall narrative and identify for the Project including possible expression through mahi toi on the significant new structures or clip on elements e.g., across the Waiapu River (refer to Identity section below).

5.3.3 Fencing and barriers

The fencing strategy should be extended to include protection for areas of enhancement planting (in addition to the planting required for earthworks mitigation and ecology mitigation or offsetting).

Fencing and safety barriers (including on bridges) should include an open character to provide for visual connections between the pathway and the surrounding natural context.

5.3.4 Toilets

The new toilet and shelter locations should be confirmed on site to avoid indigenous vegetation and sightlines to prominent landmarks. Where possible these structures should be set with a land back drop (at the base of a slope) and be recessive in terms of form and finish while ensuring good sightlines to and from the path, i.e., CPTED measures.

5.4 Pause Points/Rest Areas

Detailed design should consider the appropriate location, sequence and general arrangement of pause points including at significant sites, lookouts and toilet stops.

Typologies should be developed that reflect the site type, significance and user experience including where there may be areas to be avoided- for example sensitive habitats or wahi tapu.

Integration of pause points within the overall path type and wayfinding strategy will be important to ensure legibility and to complement the overall narrative and identity for the path.

Other detailed matters to consider will be the approach to seating, additional lighting, and rubbish bins, and how these areas are maintained.

5.5 Car parks

The location and general arrangement of new car parking areas along the route is yet to be confirmed in detail.

Existing car parking areas will be integrated into the detailed design.

The layout and details of new and enhanced car parking areas are to consider path user safety including CPTED principles, connections to toilet facilities and rest areas and managed access for vehicles on the paths (see above); as will be supported by the User Passport and Kaitiaki Strategy.

5.6 Materials

As a general principle, built components are to include use of natural materials (e.g., timber, gravel), simple lines and should avoid highly textured finishes. Textured finishes may form part of the mahi toi strategy or to deter cyclists from using one side of a boardwalk intended for walkers. These measures provide for an unobtrusive “fit” of structures into the natural context and elevate/make more prominent any cultural interpretation and mahi toi components.

Shot crete should be avoided.

Faux or replica natural finishes should be avoided. For example, where concrete retaining walls are required, avoid finishes that mimic natural stone. To soften the effects of concrete, it is preferred that measures are used to limit the height and extent of the retaining wall, ensure that it ties into natural contours well and, or planting to the edges is used. The use of pigment could be considered to soften the initial colour. However, in most cases a natural patina will develop quickly. Avoid very smooth (F rating) finish specifications.

5.7 Structure Typologies/Spatial Arrangement Strategy

Develop and refine a spatial strategy and kit of part type suite for each structure/built component required, using the typical details lodged in the consent application as a base, and others confirmed through the next stage of the Project (e.g., pause points), as suitable for each Stage and area of the Project, and to include:

- design principles to guide the spatial arrangement and selection of structure typologies to location/site (e.g., the bridge typologies will be further developed, and the sequence and exact location confirmed at detailed design) and to provide for fit into the landscape context. For example, all structures should integrate simple lines and a refined palette including timber, steel, and limited use of concrete (except where engineering requirement cannot be met otherwise) and are to complement existing structures e.g., bridges on SH35 and local roads. A simple palette of indigenous planting types, paired with different structure types, should be used to ensure a good fit into the Te Ara Tipuna landscape context and will contribute to legibility and natural wayfinding. This could include tohu, marker groupings of trees which would help mitigate the structures dominance.

- a consistent design language across typologies and between structure types.

- specified suitable material options (for edging; surface; retaining; fencing; fall from height balustrades; bollards etc) and to consider ease of construction, whole of life and maintenance in remote areas and in the coastal environment.

5.8 Identity

Landscape values will be enhanced through the development of a cohesive narrative and identity for the Project and support the mana of Te Ara Tipuna. This should include:

- refinement and detailed design of all built structures as lodged in the application and others identified in the next stages of the Project. As a minimum consider the design of the boardwalk, bridges, toilet form and facades, seating, car park bollards, wheel stops, and signage/interpretation and mahi toi structures. A kit of parts approach is recommended for standard elements with a simple, fit for context, range of typologies. Principles should also be developed, that can be used to confirm the appropriate locations for these structures along the route and their general arrangement when used together. For example, this may include a kit of parts and general arrangement principles for differing types or scale of pause points, or rest areas along the route.

-development of a cohesive wayfinding strategy for Te Ara Tipuna (refer below to Wayfinding)

- as above, development of a planting strategy to support identity and wayfinding. This should include principles that can be used to confirm the general sequence of plant species along the route, the use of tohu groupings and areas where landscaped (rather than natural regeneration type planting) may be appropriate to mark significant features, within settlements, and contribute to the legibility of the journey.

5.9 Cultural narrative/interpretation

- *Built components*

Detailed design should consider the development of a strategy to express the narrative of Te Ara Tipuna through the built components – for example, bridge design, wayfinding structures, pathway surfaces, and retaining walls (if required).

The sequencing and application of this work should consider the landscape values of the area including natural character and context of the coastal environment and characteristics of existing communities. An overall strategy is recommended to support a cohesive narrative and a fit for purpose approach to enhance existing landscape values. A ‘less is more’ approach is recommended

with emphasis on celebrating natural features and landmarks along with key sites of narrative significance.

Standalone sculptures, set in the landscape beyond the path, should be considered as part of the cultural narrative strategy. Where they mark or draw attention to existing features and views, they can be more effective in enhancing landscape values than on path structures.

Within a cohesive strategy, provide for local identity along the path through input to cultural interpretation and mahi toi elements from local iwi hapu and artists.

5.10 Wayfinding

Develop a wayfinding strategy which provides for a consistent approach along the length of Te Ara Tipuna including signage and other methods to clarify:

- direction of travel, sightline markers.
- path use.
- interpretation; and
- warning (e.g., avoidance of wahi tapu sites. This could be achieved through signage, or more simply using planting to block access from the path).

Given the Projects context and landscape values, intuitive and low height wayfinding methods are recommended including:

- the logical alignment of the path to follow topography, desire lines,
- sequenced path typologies to provide cues for legibility. For example, a standard change in path type might signal entrance to a community area or a fork to a destination off the main path.
- path markings, where the route is paved or in timber, and a
- simple palette of sign types and materials that complement the environment and the overall Project narrative. The palette of materials and wayfinding sign types should be fit for the coastal environment in terms of construction and ongoing maintenance and complement the character of the landscape. Off the shelf sign types and those used for roading and in urban contexts should be avoided where these are not required (within the road reserve).
- careful consideration of where sign types need to be taller, above the natural line of sight, and need to have text rather than info graphics. These features of signage can quickly become dominant, contributing to visual clutter and may detract from natural character values.

Appendix 14:

Recreational Impact Assessment

SPORT GISBORNE TAIRĀWHITI

TE ARA TIPUNA

RECREATION ASSESSMENT

JUNE 2023

CONTENTS

*Disclaimer. This report has been prepared by Sport Gisborne Tairāwhiti for the Te Ara Tipuna Project. 'The Planning Collective' will include this report as part of the resource consent application. No liability is accepted by Sport Gisborne Tairāwhiti or any employee of or sub-consultant to Sport Gisborne Tairāwhiti with respect to its use by any other person.

Inaa kei te mohio koe ko wai koe, I anga mai koe i hea, kei te mohio koe. Kei te anga atu ki hea.

If you know who you are and where you are from, then you will know where you are going.

1. EXECUTIVE SUMMARY

This report assesses the potential effects on recreation that will occur through the development of the Te Ara Tipuna Trail (the Ara) around the East Coast, with the predominant focus falling within the Ngati Porou rohe.

There is no one universal definition of recreation, and currently there is a breadth of recreational activities that occur on the East Coast. Importantly, the concept and importance of recreation can be viewed differently by ahikā - and this can vary between rohe within the East Coast - compared to manuhiri to the region.

Users of the Ara will face a range of recreational experiences depending upon the mode of transport they use and the sections of the trail that they undertake. This recognises the significant variation in elevation, geography and trail type. These recreational experiences will offer a range of significant well-being benefits that extend beyond purely physical health.

The key finding from this assessment is that the development of the Ara will provide increased recreational and well-being benefits, providing a significant social return on investment. For local communities, it will enhance their ability to take part in existing recreational activities, as well as introduce a range of new recreational opportunities. Importantly, these recreational activities transcend beyond purely physical benefits, as they will embrace Ngati Poroutanga. Whilst increased tourism is seen as a secondary outcome from the development of the Ara behind the restoration of connectivity for local communities, the Ara will result in an increase in visitors to the region who will be enticed by the recreational opportunities afforded. There will be a range of benefits for the wider East Coast from these additional visitors.

There are unintended consequences that will come with the increased accessibility to recreational activities from the development of the Ara, so consideration will need to be given as to how these are best managed. These consequences range from the increased health and safety risks that will occur from both locals and visitors having greater access to te taiao, and specifically hazards such as isolated areas and waterways, to the potential for local kāpata kai and favoured recreation spots to be accessed by visitors to the region. However, these risks can be mitigated and do not outweigh the significant benefits that will occur with the development of the trails.

The Te Ara Tipuna proposal also aligns well with wider statutory and regional plans.

2. PROJECT DESCRIPTION

Te Ara Tipuna is a project for the people and the land of Te Tairāwhiti. It aims to connect tangata whenua to the ways of their ancestors; how they connected to te taiao and how they sustained life for whānau and hapu. The project is about re-establishing the ways in which whānau and hapu moved around and connected with each other, through the building of infrastructure and hundreds of kilometres of accessways for pedestrians, cyclists, and horse riders.

Te Ara Tipuna is a multi-layered project with a myriad of considerations taken into account. This Recreation Assessment considers the recreation that currently exists on the East Coast, the opportunities that may arise from this project, and the impacts the Ara may have on the well-established activities that already occur.

The Ara will stretch from Gisborne to Opotiki and will provide connection to marae and significant cultural and environmental landmarks for Ngāti Porou and Te Whānau-a-Apanui, along with opportunities for economic development and local entrepreneurial endeavours. Although the primary purpose of the development of Te Ara Tipuna is to restore connectivity, particularly since recent weather events have further deteriorated State Highway 35, it will also provide opportunities for unique tourism experiences that would be unrivalled anywhere in the world. This part of Aotearoa is home to rich cultural heritage, stunning landscapes of mountains, rivers, beaches and bush and has proud traditions of diving, hunting, fishing, paddling and haka. Supporting local people to create businesses and to financially support their whanau by sharing their knowledge, stories and places of recreation will be a by-product of Te Ara Tipuna.

3. APPROACH AND SCOPE

The vision of Sport Gisborne Tairāwhiti is 'ka topa te manu ki te rangi' - 'expanding horizons for an active, healthy, connected Te Tairāwhiti.' Active recreation is a significant component of that vision and our strategic plan, as we recognise the numerous holistic benefits that come from recreation at an individual, whānau, and hapori level.

Sport Gisborne Tairāwhiti has team members whose roles are dedicated to gathering insights about recreation aspirations and trends, as well as promoting, developing, and supporting recreation initiatives throughout Te Tairāwhiti. This includes having kaimahi who are based in communities on the Coast.

In undertaking a recreational assessment for Te Ara Tipuna, we have provided the following:

A definition of what (active) recreation entails and the value it generates. This will speak to the meaning and importance of recreation at a national level, but also crucially, what it means for Ngāti Porou.

An Environmental scan – outlining the recreation activities/facilities that currently exist on the East Coast. The focus and majority of the examples from the environmental scan are predominantly within the boundaries of Te Tairāwhiti, but we have incorporated high-level activities occurring within the Eastern Bay of Plenty.

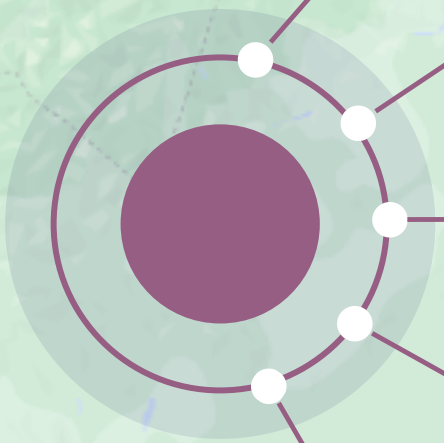
The recreation opportunities that will emerge or be enhanced from the development of the Ara and the flow-on benefits these will have to the region.

A breakdown of the distances for each day of the Ara and an estimated time to walk, cycle, or ride a horse on these sections. The distances are accurate at the time of measuring (May-June 2023) but are subject to change. As independent experts assess the hazards, risks, and areas of environmental or cultural significance, some sections of track may change which could have an impact on the distances stated in this report.

Any possible unintended consequences from creating more recreation opportunities, or better accessibility to existing recreation areas, and how these can be mitigated.

Statutory and Resource Management Act considerations.

4. OVERVIEW OF NGĀ ROHE



- **2 IWI**
- **71 HAPŪ**
- **64 MARAE**
- **26 SCHOOLS AND KURA**
- **29 ACTIVE RECREATION PROVIDERS**

POPULATION WITHIN BOUNDARY OF BOTH IWI

TOTAL POPULATION 18,762

MĀORI POPULATION 13,146

#MĀORI WHO IDENTIFY AS NGĀTI POROU IN AOTEAROA

71,052*

#MĀORI WHO IDENTIFY AS TE WHĀNAU A APANUI IN AOTEAROA

12,948*

* 2013 Census data

5. DEFINITION OF RECREATION

The term recreation is subjective and can be difficult to define. It can include activities such as kai gathering and gardening, as well as forms of activity that people usually associate with recreation like walking, tramping and kayaking. The context in which the kupu is used can also provide a different meaning within different countries, regions, and cultures.

According to the Oxford Dictionary of Environment and Conservation, recreation is defined as:

> *Any activity that refreshes, satisfies, and brings enjoyment to people, in which they engage on a voluntary basis during leisure time*

Recreation does not only relate to active recreation, although it is often associated with physical activity in New Zealand due to the popularity of outdoor recreation within New Zealand society. Activities such as tramping, camping, diving, surfing, and fishing have been well known recreation pursuits for generations of New Zealanders, as a way of being active in nature and as a way of life. Sport New Zealand's definition of Active Recreation is:

> *non-competitive physical activity for the purpose of wellbeing and enjoyment. Activities can occur independently or with the involvement of a 'provider' group or organisation*

The New Zealand Recreation Association (Recreation Aotearoa) state in their Recreation Manifesto from 2017 that recreation is not just about enjoyment. It is about:

> *being healthy, engaged and stimulated, having fun, and interacting with others, whether through outdoor recreation, community recreation, or aquatic and facility-based recreation*

This statement refers to recreation being a part of people's way of life through activities that sustain hauora and engage people with their communities. From a te ao māori perspective, this is in line with many whānau, hapu and iwi who rely on the natural environment for living; through activities such as kai gathering, transport, weaving and gardening.

6. UNDERSTANDING RECREATION FROM A MĀORI PERSPECTIVE

Te Runanganui o Ngati Porou base Ngati Poroutanga on the concept of a Whare Maire (Ancestral House) supported by five pou:

- Rangatira
- Mātauranga
- Whānau
- Kaitiaki
- Whairawa

The structure of the whare maire was based on the whakaaro of tribal members who had contributed their views during the Te Haeata treaty settlement consultations. Key to the pou of Ngāti Poroutanga is providing the foundation and priorities to support current and future generations of Ngāti Porou to know, live and pass down what it means to be ngā uri o Ngāti Porou in the many environments of Ngāti Porou.

Similarly, Te Runanga o Te Whānau a Apanui vision (noted below) places priority in generations that are strong in the knowledge of Te Whānau a Apanui and are able to achieve personally as Apanui and in all facets of the world around them:

An Iwi under the mantle of Te Atua and that is living in balance and harmony with Te Ao Turoa, actively maintaining and developing internal and external relationships, it's Matauranga base, its Mana, its Reo, its tikanga and all taonga to ensure that present and future generations achieve environmental, economic, social, cultural and political security.

While both iwi that sit within the boundaries of Te Ara Tipuna do not have one definition for active recreation, it's important to view physical activity and being active not as the main objective but rather the means to achive wider aspirations of the iwi. Therefore any mahi to develop active recreation activities and facilities within iwi rohe need to be firstly led by a need identified by iwi to achieve iwi aspirations and connect to the bigger picture and strong foundation that supports ways and methods to share taonga, matauranga, and success for current and future generations.

Additional values that are important concepts which underpin a Māori worldview that may differ or provide a different context for work that supports Māori aspirations include Hauora, Mana and Mauri.
Haoura, Mana and Mauri are integral to who Māori are and guide a way of being as well as the interactions with people, place and taonga which Māori are connected to.

Rather than the absence of illness, hauora refers to all elements that support, optimise and sustain vitality and wellbeing, Hau – Vigour, Vitality, Vital essence, Ora – Well, Healthy, Fit, Alive. Hauora – To be well, vigorous, fit invigorated, revitalised.

When we understand that mana constitutes a relationship to atua, to society and environment and embodies dignity, integrity, identity, self-esteem and spiritual vitality, and that mauri embodies lifeforce, physical integrity, vitality and synergy between people and the environment then we can understand that Te Ara Tipuna provides a unique experience for a person's mana to be acknowledged, embraced and enhanced as it provides an opportunity to increase hononga, beliefs and experience on the Ara.

When considering the benefits of connecting with Te Ara Tipuna, the activity of walking, biking or trekking the Ara supports physical wellbeing, but it is the taiao, matauranga, and wairua that feeds mental, social and emotional wellbeing. While wellbeing may refer to the wellness an individual experiences, supporting activity on the Ara that focus on positively building hauora, mana and mauri will intrinsically enable people to behave as kaitiaki on the Ara increasing the mauri of a person as well as the Ara and uplifting the vitality and wellbeing of both people and place.

7. ENVIRONMENTAL SCAN

The recreation opportunities currently on the East Coast are a combination of independent activities undertaken by whanau, hapu, iwi and hapori, and activities done with the support of organisations such as clubs, community groups and schools / te kura kaupapa māori (TKKM).

There are 26 schools and kura on the East Coast stretching from Wainui Beach in Gisborne to Ōpōtiki. Schools provide tamariki, rangatahi and whanau with a place for recreation to occur and they also offer opportunities through programmes and initiatives in school and community.

Since November 2020, Sport Gisborne Tairāwhiti has approved applications from Tairāwhiti schools / kura on the East Coast for nine active recreation projects from the Tū Manawa Active Aotearoa Fund (TMAA). These initiatives, along with the other 11 TMAA active recreation projects funded on the coast, have activated tamariki, rangatahi and their whanau in activities in the natural environment such as kayaking, waka ama, surfing, bush camps, hunting and taiao-based activity. They have also included the use of built facilities like school pools for swimming sessions and skate parks for skateboarding and scootering. The scope of recreation projects like these will improve with the development of Te Ara Tipuna trails. The Ara will provide more opportunities for outdoor education and recreation within schools and kura, while providing space for cross-curriculum learning around whakapapa. As stated in the Te Ara Tipuna Proposal Document 2021, the project aims to build and maintain infrastructure of accessways for pedestrians, cyclists, and horse trekkers. It will be the evocation of the ways in which tipuna practiced life and community and the ways they interacted with the environment.

There are around 29 sport and active recreation clubs, community groups and businesses based on the East Coast (Ngati Porou) who support and deliver active recreation experiences (see Appendix A).

In Gisborne and the surrounding rural areas there are an additional 61 active recreation and community groups who do not currently service the coast. The development of Te Ara Tipuna would provide an opportunity for many of these groups to consider expanding their offerings or support capacity and capability build for interested communities to include use of the trails. These increased opportunities would not only provide an increase in community well-being but would likely lead to increased economic benefit.

8. RECREATIONAL ROAD USE

Recreational road use data is not currently recorded, but data from the popular running and cycling app Strava suggests that Highway 35 gets moderate use by cyclists. The app has millions of users worldwide who record their activity using their GPS device or smartphone and then upload to the site to compare their times with others who have completed the same route. Strava users can create 'segments' on the app which then become used to compete with others over the same section. Heatmaps can also be used to determine how much usage an area gets for certain activities. These are premium features and therefore usage estimates are a guide only.

- *An example of a segment on Highway 35 is a cycle segment from Wainui to Pouawa. It is 14 km long and has had 243 unique Strava users ride the segment over the past few years. 30 unique riders have cycled the segment in 2023.*
- *A Pouawa to Whangara cycle segment is 8.5km long and has had 279 unique Strava users ride it and 27 in 2023.*
- *In the Bay of Plenty, there is a cycle segment from Te Kaha to Whanrua Bay which is 15km long and it has had 331 unique Strava users ride it over the past few years. 14 unique riders have cycled it in 2023.*
- *A 5.4km segment of Highway 35 near Opape has had 382 unique strava users ride the segment, with 19 unique riders in 2023.*
- *There is a possibility that the increased number of cyclists using Highway 35 on the Bay of Plenty side is due to the Motu Trails and an increase in cycle tourists using those trails.*
- *The Motu Challenge is a multi-sport and cycling event that incorporates the Motu Cycle Trails and participants would likely use the road for training.*
- *For over 20 years, the Coast Duathlon was held on the Tairāwhiti side of Highway 35, between Gisborne and Te Puia Springs. This was a very popular event on the sporting calendar, especially in the 1990's, but ended due to the increased risk management required to mitigate risks of cycling and running on the road.*

Case Study

9. TE ARATIA WALKWAY - MĀHIA

The recent trail development of Te Aratia Walkway in Mahia is a recent example of a successful iwi-led initiative. The 24 km return trail has been a partnership between Tuahuru and Kaiuku Marae, landowners and the wider community. The planting of native trees began in 2014 but until the track was opened in 2020 the public was unable to see all the work that had been done to bring back native bird and fish life and to dramatically improve water quality in the Whangawehi River. They retired over 150ha and planted over 250,000 trees.

The trail is for pedestrians and cyclists alike and it sits entirely on private land. Landowners and local hapū have opened their doors to share the benefit of the restored environment with the wider community and all New Zealanders. It allows people the opportunity to connect with the taiao and to access quality local recreational infrastructure. The trail also provides a connection between the eastern and western sides of the Mahia Peninsula, with some calling it the Mahia Coast to Coast.

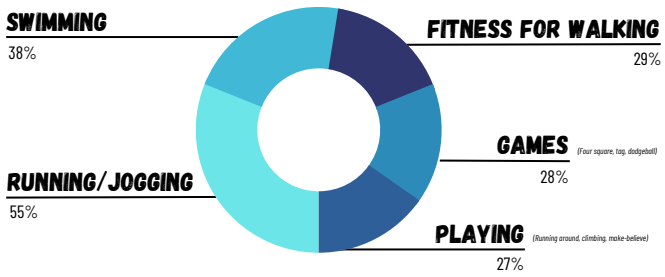
Photo credit:
Whangawehi Catchment Management Group

10. BENEFITS OF ACTIVE RECREATION

How we currently move across Te Tairāwhiti

Top five activities in the past 7 days for rangatahi and tamariki

Tairāwhiti (Sport NZ 2021)

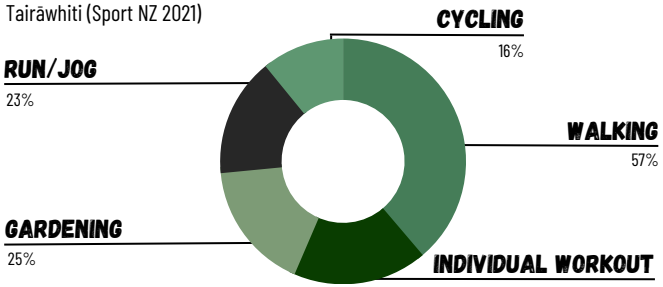


Fourth highest answer of things they'd like to do more of:

Tramping and bushwalks **30%**

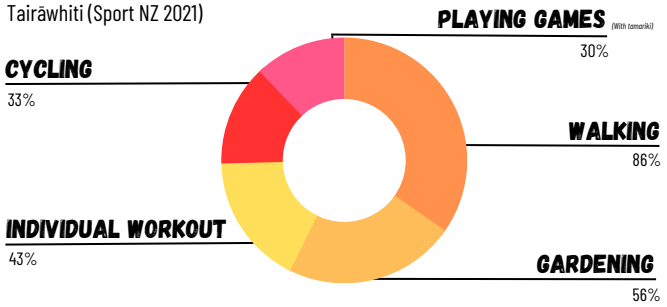
Top five activities in the past 7 days for adults

Tairāwhiti (Sport NZ 2021)



Top five activities in the past 12 months for adults

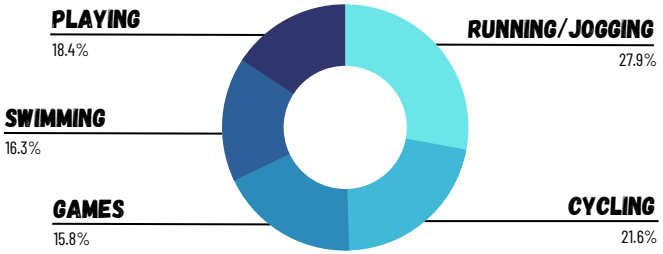
Tairāwhiti (Sport NZ 2021)



Second highest answer of things they'd like to do more of:

Tramping and bushwalks **23%**

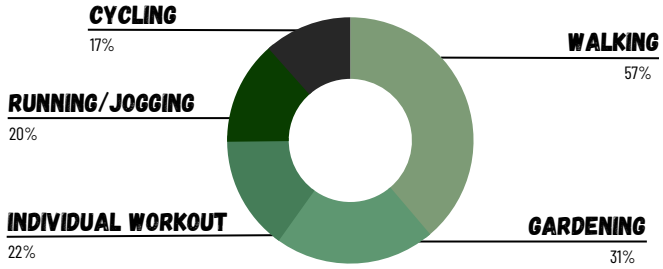
Bay of Plenty (Sport NZ 2021)



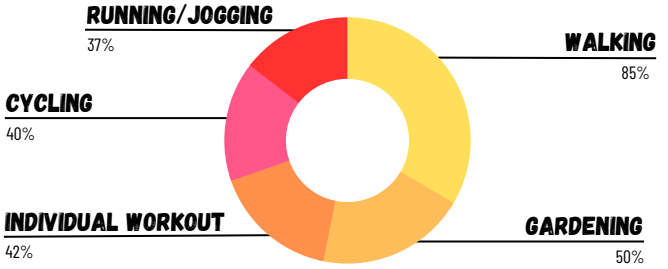
Third highest answer of things they'd like to do more of:

Mountain biking **25%**

Bay of Plenty (Sport NZ 2021)



Bay of Plenty (Sport NZ 2021)



Highest answer of things they'd like to do more of:

Tramping and bushwalks **26%**

11. CULTURAL IDENTITY AND WELLBEING

A key aspiration for the development of Te Ara Tipuna is to provide an embodiment and experience that can connect Ngāti Porou and Te Whānau a Apanui decendants to the life, community, environments and the cultural legacy passed down from their tipuna. Therefore, understanding the link between connection to whakapapa, matauranga, whānau/hapū/iwi identity for Ngāti Porou and Te Whānau a Apanui and its relation to wellbeing is integral.

While considering the link between recreation and wellbeing, we must also be aware that this is only one contributor to wellbeing and cannot be viewed in isolation, rather within the context of the system of wellbeing that Ngāti Porou and Te Whānau a Apanui descendants view themselves.

To give guidance on how Māori Wellbeing could be measured, Durie (2006) outlines the levels of wellbeing at an individual, whānau, and population basis. So, considering the impact of wellbeing thorough physical activity or cultural identity needs to be viewed and planned for at an individual, whānau and population basis for Ngāti Porou and Te Whānau a Apanui.

To strengthen this thinking, Durie discusses key capacities that strengthen wellbeing for whānau Manaakitanga (Whānau care), Pupuri taonga (guardianship), Whakamana (Empowerment), Whakatakato Tikanga (Planning), Whakapūmau tikanga (Cultural endorsement), Whakawhānaungatanga (Whānau consensus).

Currently 42% of urban Māori visit their marae on a regular basis while 53% of rural Māori are regularly connected to their marae. The reasons why whānau do not connect to their marae on a regular basis can be complex and difficult to bridge especially when there could be generational gaps in knowledge and connection.

With 71.1% of Ngāti Porou and 59.1% Te Whānau a Apanui living in urban areas (notably Auckland, Bay of Plenty, Gisborne the Waikato and Wellington), Te Ara Tipuna provides an opportunity to reconnect to whenua and identity and doesn't require a whānau to find pathways to access hau kainga, but could build the confidence to do so as they learn more about their whakapapa.

While all pou of Durie's model are applicable to the development of Te Ara Tipuna, there is a strong alliance of this projects benefits to wellbeing in:

MANAAKITANGA

Te Ara Tipuna supports opportunities to build and strengthen an individual, whānau, hapū and iwi sense of identity through connecting to places and spaces that are of significance and tell the history and pūrakau of Ngāti Porou

PUPURI TAONGA

In the hands of whānau, hapū and iwi, this Great Walk will centre whānau to have active involvement in decision making of whenua and taonga

WHAKAMANA

Te Ara Tipuna provides whānau with the ability to participate as Māori in Māori spaces, or more importantly as Ngati Porou or Te Whānau a Apanui in Ngati Porou and Te Whānau a Apanui spaces. By providing resources and access to matauranga that connects people to their identity through physical and lived experiences, users of the trails are likely to experience positive impacts on all four dimensions of wellbeing and hauora

WHAKAPŪMAU TIKANGA

Te Ara Tipuna strengthens wellbeing by supporting iwi to physically experience the cultural heritage connected to whānau using reo, pūrakau and matauranga specific to marae, hapū and iwi.

12. THE RELATIONSHIP BETWEEN NATURE AND HEALTH

The Department of Conservation published a study (Blaschke, 2013) that collected evidence across a number of New Zealand based studies, which built on and incorporated learnings from international studies, to evidence access to green spaces as supporting:

Increased health and wellbeing from access to green and natural spaces

Improved opportunities for physical activity

Providing opportunities for people to recreate together and improve social connectivity

Reduced stress and the ability to mentally recharge

Short term benefits of improved mood and physical health benefits of exercise

A Māori worldview of wellbeing is not the absence of illness but the presence of wellness and the connection to whenua as part of whakapapa and identity adds a deeper layer to the impact on wellbeing for Māori.

Research undertaken to understand the connection for New Zealanders to the outdoors (DOC, 2020) highlighted the significance of the taiao on Māori with Māori being more likely to participate in outdoors activity, especially water-based activities and a willingness to travel three hours or more to be active in the outdoors.

The study noted that Māori participants would use the outdoors more if there were more accessible and quality facilities available.

Information such as that outlined in formal studies quantifies the importance of being active in the taiao with improved wellbeing, but again for Māori, specifically the whānau and hapū of Ngāti Porou and Te Whānau a Apanui, The Ara provides increased opportunities for our people to connect to, care for and know who they are and where they belong through the whenua

13. THE GREATER IMPACT OF INVESTING IN TE ARA TIPUNA

Understanding the benefits realised from investing Government money into initiatives and focus areas has been a priority for many departments in recent years. Additionally, the focus on the interconnectedness of contributing factors to people's wellbeing has been central to investment from Government as a result of the Living Standards and He Ara Waiora Frameworks (Treasury, 2021).

Sport New Zealand has invested time and resource into understanding the value of physical activity to people's wellbeing and through their formulas, have determined an estimated social return on investment. This mahi has estimated the social return on investment at $2.12 for every dollar invested into the sector (Sport NZ, 2022) and is evidenced to support improved outcomes in:

- Quality of life and increased life expectancy
- Prevention of diseases attributable to physical inactivity
- Reduced absenteeism
- Enhanced social capital

In utilising this formula, Te Ara Tipuna could confidently estimate the investment of $179,000,000 to provide approximately $379,480,000 of additional social return on investment across health, education, income, whānau connection, sense of wellbeing, safety and volunteerism. The wider positive impact that could be inferred is increased opportunities for small business development, access to more opportunities with improved roading and people infrastructure and increased skill sets within the community with groups who may provide support for the Ara.

THE GREATER IMPACT OF INVESTING IN TE ARA TIPUNA

TE AO MĀORI CONSIDERATIONS REGARDING SOCIAL RETURN

Māori aspirations are derived from an accumulation of whakapapa including knowledge systems, values, and beliefs, and their manifestations in objects, practices, and concepts — all of which have an innate life force or mana. It was agreed these outcomes must therefore be treated accordingly, not measured for their contributions to economic expenditure or production. Māori outcomes are consistent with Māori views of wellbeing, noting dimensions other than physical — that is, spiritual, mental, emotional, and cultural health, all within a context of environmental health. Eight outcomes were identified that were specific to Māori.

The key points identified are:

Recreational physical activity generates considerable value to society beyond the traditional economic measures identified in previous studies in Aotearoa New Zealand. It identified a wide range of benefits to society, spanning across several domains of wellbeing, including health; subjective wellbeing; income consumption and wealth; work, care and volunteering; family and friends; and safety. Much wider than participating to improve one's health.

Recreational physical activity makes a significant contribution to the wellbeing of Māori through strengthening intergenerational relationships and reinforcing cultural values, beliefs, social norms and knowledge. 'As-Māori' organisations and events utilise sport and recreation as a vehicle to reclaim and reinvigorate Māori communities of care.

The bi-cultural approach taken by Sport New Zealand to understand the value of sport recognised that Māori outcomes are distinct from the general population's outcomes, and it was agreed these outcomes must therefore be treated accordingly. These outcomes were not measured for their contributions to economic expenditure or production as part of the national SROI. Māori stakeholders described outcomes that are consistent with Māori views of wellbeing, noting dimensions other than physical – i.e., spiritual, mental, emotional, cultural health, all within a context of environmental health.

We acknowledge that Ngāti Porou whānau, hapū and iwi are likely to have unique benefits related more directly to cultural vitality and more evidence and discussion on what is more important to Ngāti Porou is required to better understand this.

14. RANGATAHI PERSPECTIVES ON RECREATION

Engagement directly with rangatahi in Secondary Schools and Kura Tuarua on the East Coast provides context and understanding on the role active recreation plays from a young person's perspective.

There is a marked difference in activities that rangatahi from a town school would like to engage in as opposed to rangatahi from an East Cape kura - this difference highlights the motivation to move and be active is very different for East Coast rangatahi and focusses on activities to support survival (food, shelter, warmth, connection to identity) as well recreation for entertainment in nature spaces (surfing, walks/treks, swimming) (**Voice of Rangatahi survey, Active NZ survey, and focus groups*) .

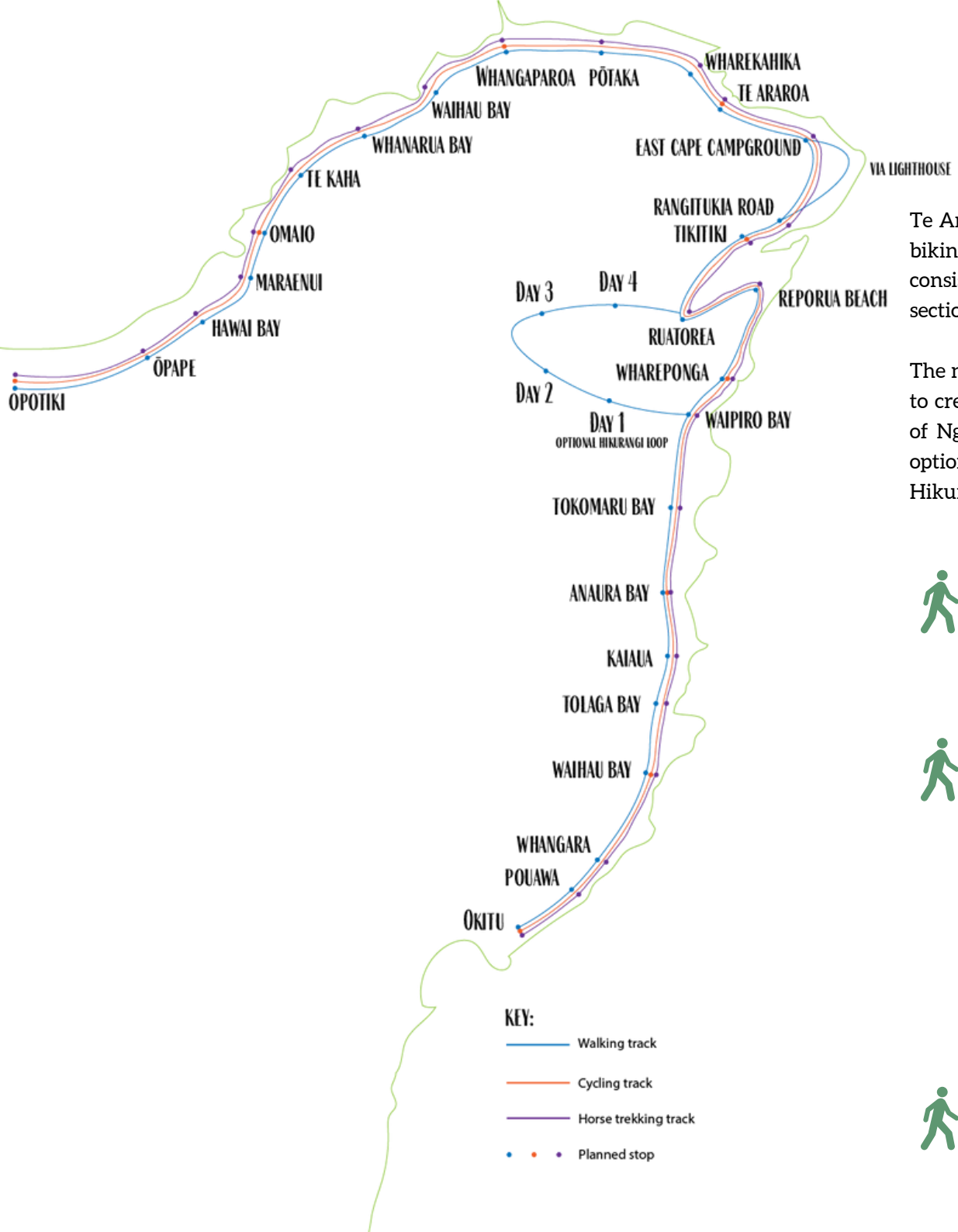
Through co-design processes at our schools, the top end of the Coast prioritise recreational activities of hunting, fishing, diving for kaimoana and kai preparation. These activities provide a way for rangatahi to be connected to the taiao and places of significance for their whānau and hapū. When asked why these activities were important to them, the rangatahi spoke of providing for their whānau and being self-sufficient especially during an emergency or pandemic. Rangatahi place a lot of value on being a contributing member of the whānau. The development of the trails can provide a way to connect to identity for our rangatahi but opportunities for small business and entrepreneurial activities could be supported and developed for young people and the wider community.

Rangatahi want to connect with and see role models in sport, active recreation, and culture that they can relate to and be inspired by. The remote nature of Te Tairāwhiti means that access to people outside of their community can be limited and role models don't need to be famous, although social media influencers need to be understood in young people's context. A good example of this is Te Aorere Pewhairangi's Waewae 35 kaupapa and his other local hunting, fishing and content focussed on hau kainga experiences. New experiences or groups who spark their interest and expand world views – while learning about historic role models and building knowledge of local tipuna as part of the trail experience can connect identity and aspiration to support rangatahi in their development.

Importantly, external groups who can engage using reo Māori are important for kura, not only to support the revitalisation of reo but to also foster role models. Use of reo and understanding tikanga is critical for rangatahi to comprehend and engage well. Use of reo and tikanga in the development and experience of the Ara will connect enhanced cultural identity in physically active ways and promote physical literacy and holistic approaches to health and wellbeing.

Through the engagement process, East Coast rangatahi discussed the need to repair roads in order to improve their access to opportunities in and out of our region. Access to health care, food, internet and social interaction are extremely compromised as a result of failed roading and communications networks. Scheduling activities on days when their home car was available to use also factored into their thinking - highlighting that the impact of system level decisions is felt very closely by rangatahi who experience more severe barriers to transport, and access compared to towns and cities with developed infrastructure.

Engagement in sport has a strong proud history on the East Coast with rugby, tennis, ki-o-rahi, hockey and softball all having their space here. From an outside perspective many would see rugby clubs as a single code venue - however the club rooms have a wider purpose and meaning on the Coast. Additionally, the strong connect to marae, hapū, iwi and kura set East Coast clubs apart from others.



15. DAYS ON THE ARA

Te Ara Tipuna will include 500 kilometres of walking trail, 380 kilometres of biking trail and around 375 kilometres of horse trekking trail. The trails will consist of raised boardwalks, boardwalks and gravel tracks. As outlined in section 3, the distances, elevation and times are subject to change.

The network of trails will connect State Highway 35, public land and reserves to create a continuous journey around the coast through the respective rohe of Ngati Porou and Te Whanau-a-Apanui. The walking trail has additional options - the Hikurangi Loop, which walks around the culturally significant Hikurangi Maunga, and the East Cape Lighthouse loop.

The Ara is broken down into 26 walking days, plus five additional walking days if one chooses to complete the Hikurangi Loop. It is estimated it would take 29 days to complete the entire journey by foot. By walking the Hikurangi Loop, the user would miss days 9 and 10 (Whareponga and Reporua Beach).

Each day varies in difficulty, with some days longer or harder than others. Some walkers may find that they can walk the whole Ara in a shorter timeframe by joining some of the shorter days together. Some people may take longer than 29 days and spend extra time in areas they are enjoying, or they may require rest days. The estimated time to walk the days were based on Naismith's rule which allows one hour for every 5 km and another hour for every 600m of ascent. The calculator used for this report used a walking speed of 4 km/hr. The Naismith rule does not account for breaks, so an extra 15 minutes was also added for every 5 km of walking. Once the trail has been built, the times will need to be reviewed.

The horse trekking has been split into 12 trekking days for the purpose of this report. Each day covers 5-10 hours of trekking. The trekking times were based on an average speed of 8 km/hr and an extra hour was added per 8km of trekking for refreshment stops and rest time.

DAYS ON THE ARA

It would be recommended for horse riders to have some experience with distance riding or travel with an experienced guide. Having a good understanding of horses and their needs is essential, as is riding a horse that is appropriate for this type of expedition.

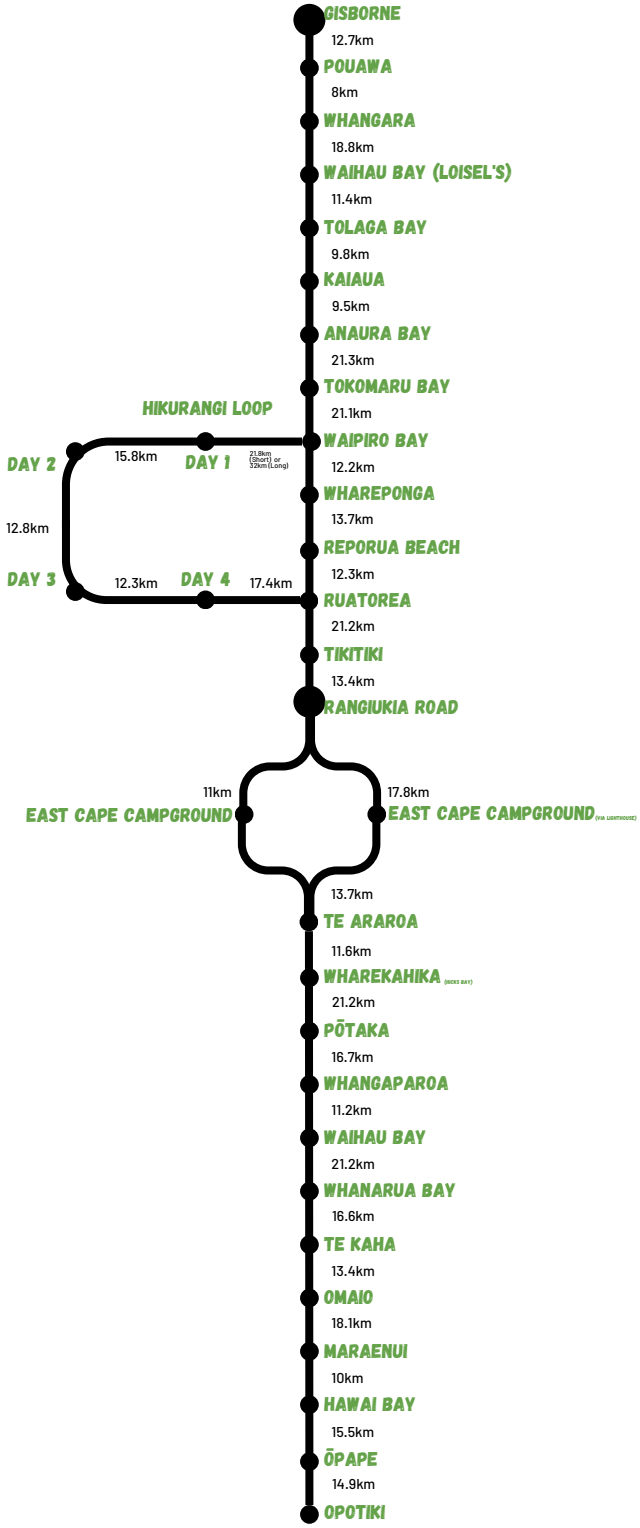
The Waka Kotahi (NZTA) Cycle Route Grading System descriptions and the NZ Cycle Trail Design Guide were used to determine the estimated trail grades. The Cycle Trail Design Guide 5th edition (Appendix B - 3.2 table 2 & 4.2, table 12) is used as a reference for users to get an understanding of the difficulties and level of fitness required, but the cycle trail is unlikely to meet the strict standards set out for mountain bike trails. There may be opportunities in the future for sections of the trail to be upgraded to meet these standards. As the trail has not yet been developed, it isn't currently possible to grade accurately. The trail will need to be graded upon completion of the build.

For the purpose of this report, the Ara is sectioned into eight biking days based on riding of between 6-11 hours per day. The biking times have been determined based on an average speed of around 10 km/hr. An extra hour has been allocated per 600m of ascent and the times have been rounded up to the nearest half hour to account for refreshments stops and rest breaks. Experienced cyclists may complete the sections more quickly than the stated time. It would be advisable to have a moderate level of fitness before attempting the track in its entirety. There are big climbs and long days which could be challenging to some.

The trail could be used in a myriad of ways. While some users may want to complete the whole trail in one attempt, others may choose to attempt a couple of sections. Others may do the whole trail, but over a prolonged time period. The opportunities for self-designed, unique experiences are endless.

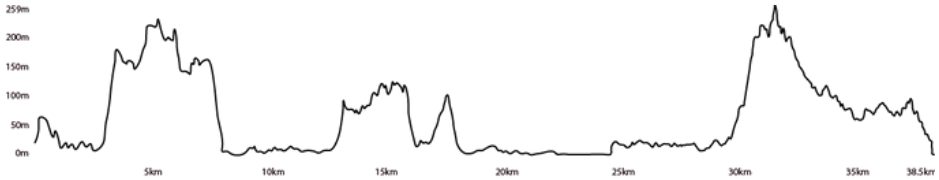
Due to the various track surfaces, including gravel, hills, beach, and farmland, it would be advisable to have prior mountain biking experience. It would be recommended to use a mountain bike with good gears and good tyre tread. All riders should wear a helmet on all sections of the track.

Consideration also needs to be given to the exponential rise in the use of e-bikes. These battery powered electric bikes have the capacity to travel at speeds of up to 50 km/hr and due to their ability to climb hills with more ease, there is a high possibility that many would be used to ride the Ara. It is recommended that e-bikers do not exceed a speed of 15-20 km/hr for the safety and wellbeing of all track users. Safe speed signs will need to be prominently displayed along the entire route.



DAYS ON THE ARA

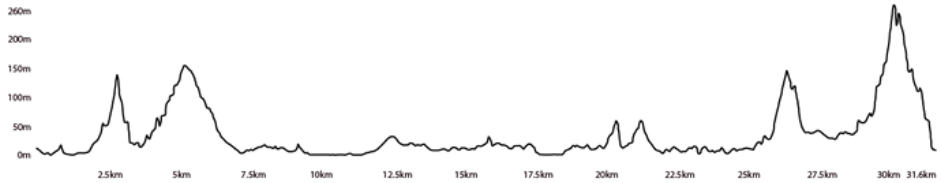
OKITU → WAIHAU BAY (LOISELS)



- 38.4km of biking track
- 8 hours recommended time to bike
- 3 walking days
- 39.5km of walking track
- 1 and a half horse trekking days
- 14 hours 5 minutes of total walking time recommended

- Surfing at Okitu, Makorori and Loisels beaches.
- Freedom camping at the Makorori Beach northern carpark, Turihaua, Pouawa and Loisels beaches.
- Snorkelling at Te Tapuwae o Rongokako Marine Reserve.
- Pouawa River is a significant waterway that flows into the Te Tapuwae o Rongokako Marine Reserve.
- Waiomoko River is used by tamariki who use hinaki to catch eels and fish.
- Diving at Whangara and Waihau Bay.
- Fishing at Loisels.
- Caution must be taken near the Pakarae River inlet at Whangara, as this is a tidal area.

WAIHAU BAY → ANAURA BAY



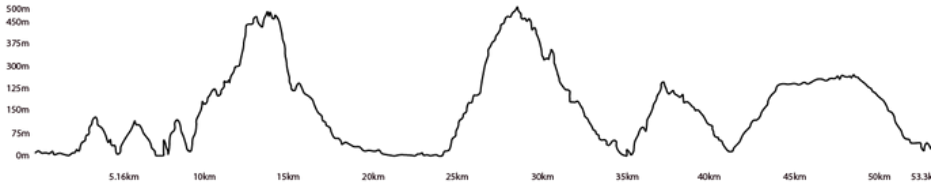
- 31.8km of biking track
- 7 hours recommended time to bike
- 3 walking days
- 30.7km of walking track
- 1 and a half horse trekking days
- 12 hours 15 minutes of total walking time recommended

- Cooks Cove Walkway is an additional walkway that can be added on to Te Ara Tipuna journey.
- Uawa River is used for boating, waka ama, fishing and swimming (it should be noted that these activities have been disrupted due to all the slash washed down in recent weather events).
- Surfing at the Cove, Tolaga Bay and Kaiaua Bay.
- Diving at Anaura Bay.
- The Ara passes two urupa in Tolaga Bay.
- Development is underway of a pump track in Tolaga Bay.
- Anaura Bay track is an additional track that can be walked from the DOC campsite. This is currently closed due to weather damage on the track.

DAYS ON THE ARA

- Nuhiti is a private bay. There is camping and diving that occurs there.
- Hunting in the large areas of forest. This section of the track can be in very remote areas and safety measures must be paramount.
- Surfing and fishing at Tokomaru Bay and Waipiro Bay.
- Freedom camping in Tokomaru Bay.

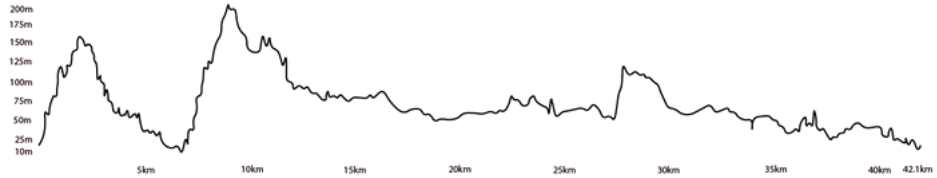
ANAURA BAY → WHAREPONGA



- 54km of biking track
- 3 walking days
- 1.3 horse trekking days
- 11.5 hours recommended time to bike
- 54.6km of walking track
- 22 hours 45 minutes of total walking time recommended

- Waiapu River is a significant waterway.
- Ruatorea is a significant township on the coast. There has been a recent upgrade to their playground, basketball court and skatepark, with very colourful artwork painted onto the concrete surfaces.

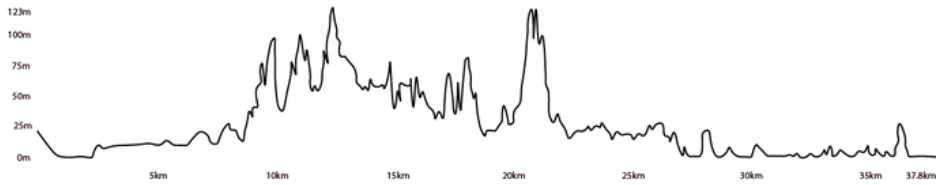
WHAREPONGA → TIKITIKI



- 46.8km of biking track
- 3 walking days
- 1 horse trekking day
- 8.5 hours recommended time to bike
- 47.2km of walking track
- 17 hours of total walking time recommended

DAYS ON THE ARA

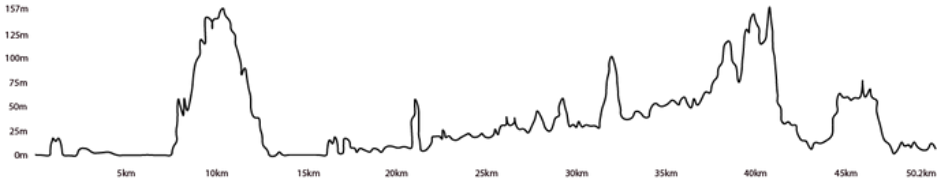
TIKITIKI → TE ARAROA



- 37.2km of biking track
- 3 walking days
- 1 and a half horse trekking days
- 6 hours recommended time to bike
- 38.1km of walking track, or 44.9km
- 13 hours 45 minutes of total walking time recommended, or 16 hours 30 minutes with the Lighthouse loop

- The East Cape Campground receives a number of visitors external to the region in the peak summer months, and this results in additional walkers, swimmers, and bikers in the area.
- There are a number of kapata kai spots along the coastline that runs parallel to East Cape Road that are highly utilised by locals.
- The Waipapa, Orutua, and Awatere rivers are frequently used as swimming locations.
- East Cape Lighthouse walking track. A significant tourism drawcard for the region as it receives thousands of visitors each year with the peak time being around the New Year period. The track is currently closed by the whānau trust whose land the track runs through, as it requires maintenance from Maritime New Zealand. It is envisioned the track will reopen at some point in 2023.

TE ARAROA → WHANGAPAROA



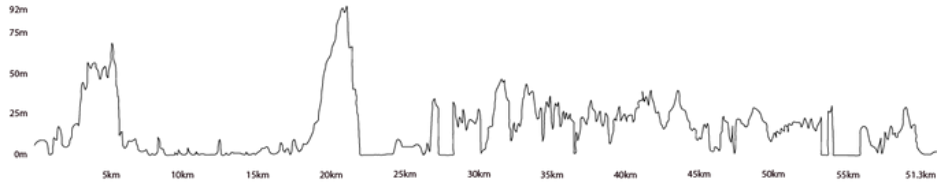
- 50.1km of biking track
- 3 walking days
- 1 and a half horse trekking days
- 7 hours 15 minutes recommended time to bike
- 49.5km of walking track
- 17 hours 30 minutes of total walking time recommended

- Wharekahika has an existing walkway from Hicks Bay Motel to Onepoto. The Waihirere Waterfall is on private land, but the hāpu generally provide access to people wanting to walk to the falls. There is also surfing in the bay, diving, waka ama and horse sports.
- The track follows the Wharekahika River.

DAYS ON THE ARA

- Fishing at Waihau Bay.
- Raukokore River is a significant waterway flowing out to Papatea Bay.
- Camping at Waikawa Bay and Te Kaha.
- Horse trekking provider.

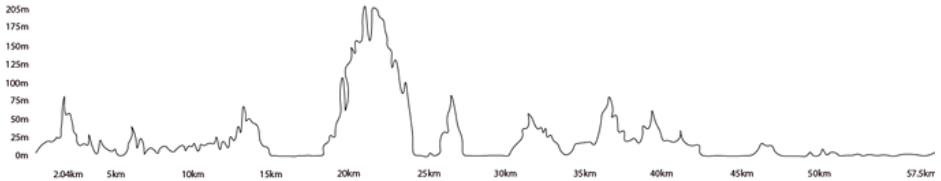
WHANGAPAROA → OMAIO



- 61.9km of biking track
- 8.5 hours recommended time to bike
- 4 walking days
- 62.4km of walking track
- 2 horse trekking days
- 21 hours 15 minutes of total walking time recommended

- Motu Trails Dunes track is used by mountain bikers and pedestrians.
- Motu River has jet boating, white water rafting and kayaking. This river can be difficult to cross, and the road can get very narrow. The option of taking a water taxi to cover the Day 23 section is in discussion.

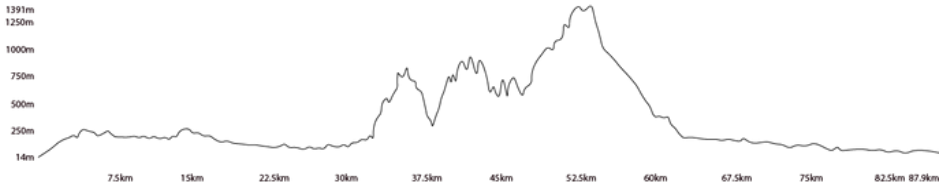
OMAIO → OPOTIKI



- 58.1km of biking track
- 7 hours 45 minutes recommended time to bike
- 4 walking days
- 58.5km of walking track
- 1 and a half horse trekking days
- 20 hours 30 minutes of total walking time recommended

DAYS ON THE ARA

HIKURANGI LOOP



- 112.1km of walking track
- 5 walking days
- 34 hours 30 minutes of total walking time recommended if walking via Taharoa Marae
- Day 1 can be either 32km and go via Te Puia Springs, or it can be 21.8km and go via Taharoa Marae.
  39 hours of total walking time recommended if walking via Te Puia Springs.

- Te Puia Hot Springs. There is an opportunity to revitalise this as a highlight for the trail.
- The trail follows the Tapuaeroa River for the final two days of the loop.
- Summiting Mount Hikurangi would be an optional extra for those walking the loop.

Case Study

16. THE REDWOODS – WHAKAREWAREWA FOREST – ROTORUA

The Tokorangi Forest (Redwoods) and Whakarewarewa Forest in Rotorua has grown over time to become one of the most well-used and recognised trail areas in NZ for walking, running and mountain biking. It is a very important recreational resource for the local community, and it draws in tourists from all around New Zealand and the world who are interested in being In the outdoors.

The Redwoods walking track was first opened to the public for recreational use in 1970. The forest's visitor centre opened in 1978 and many more walking tracks were then developed. Over the following couple of decades, the forest was recognised more and more by the community and the crown for its recreational and historical significance.The first mountain bike tracks were built in 1993 which saw the sport grow in popularity, and by 2004 the first policy was developed to govern mountain bike access and track building.

In 2009, the land on which these forests sit was returned to māori ownership, following Treaty of Waitangi claims. In 2010 a working group was set up with Iwi, Rotorua District Council and the land management and forestry management companies to focus on recreational management, with a new Recreational Use policy implemented in 2016. This is to manage recreational use and ensure that risks to forest users are managed alongside forestry activity.

The trails in Tokorangi and Whakarewarewa Forests are good examples of multi-use tracks that incorporate important safety components and co-governance structures. In 2016, 185 GPS mapped markers were installed, which are coded and can help emergency workers locate someone in an emergency. They also introduced a First Response Unit with All-terrain vehicles to the forest.

17. OPPORTUNITIES

The development of Te Ara Tipuna trails would provide opportunity for more small businesses and eco-tourism ventures to flourish around the Ara, such as accommodation for trail users, horse trek tours, guided walks or cycle rides, equipment hires and recreation activities. Local people would be able to share their pūrākau with visitors, offer them unique marae experiences and provide the opportunity for visitors and locals alike to give back to the taiao through planting days and restoration projects.

Some businesses and recreation opportunities that are no longer operating may be rejuvenated if the Ara was built, for example Eastender Horse Treks who provided horse riding experiences around Tikitiki, and Kaupoi Adventures who offered hunting, diving, bush and cultural adventures around Ruatorea.

- Kaupoi Adventures also organised an adventure race called Maunga to Moana which included team and individual events where participants completed hiking, cycling and running sections, alongside mystery activities with a unique cultural flavour. This event has been cancelled post covid, but it has significant potential for growth.

- The Motu Trails are an existing network of biking trails, based in Ōpōtiki, that were constructed as part of Ngā Haerenga Great Rides of New Zealand. Te Ara Tipuna would utilise the Motu Dunes Trail on the Ōpōtiki side of the Ara. The Motu Trails are well established and attract many visitors to the Ōpōtiki region. Te Ara Tipuna would give these visitors the chance to extend their trip around the coast.

- There are other recreation events on the regional calendar that align with the kaupapa of the Ara. The First Light Marathon was held for the first time in January 2023 and attracted over 100 visitors to the region. The run starts in Gisborne and heads out to Wainui and Okitu beaches then traverses the hills of Makorori and Tatapouri before running back into town.

OPPORTUNITIES

The internationally owned company who hosted the event, Albatross Adventures, recognised the beauty of Tairāwhiti and wanted to showcase the uniqueness of the area and māori culture.

Sport Gisborne Tairāwhiti host the Titirangi Mt Everest Challenge over a six week period every year. This popular event has evolved to include any maunga, anywhere. Participants walk, run or cycle until they have effectively reached the height of Mount Everest – 8849m. If climbing Titirangi Maunga in Gisborne, this would be 68 climbs. Groups have formed up the coast for this event, climbing local maunga and creating their own connections and celebrations surrounding it.

BUILDING ON EXISTING MOMENTUM

MAHI TAIAO

Through impactful frameworks such as Te Aho Matua and an increase in the lived experiences of climate change impacts - schools, kura and communities are increasingly looking for learning and skill building in mahi taiao. Community groups are supporting kura to develop skills such as trapping, fencing, water quality testing and civil defence support relating to kaitiakitanga. This learning could be increased if new spaces and places are open to the kura and tauira.

MAARA KAI

Local businesses are supporting kura and community maara kai that enable learning such as health and safety protocols, monitoring for pests, setting traps, planting native seeds, seed collecting and water monitoring. Additionally the recent cyclone damage saw whānau support harvesting of maara which contributed to donated and sold boxes of Nati Kai subscription boxes. Providing kai, learning about historic maara and eco-tourism opportunties are all additional possibility to support the Ara.

EKE HOIHO

While Horse Sports Clubs are established in a number of communities on the Coast, a recent upsurge of interest from kura has been noted. Increased numbers of tamariki engaging in horse sports will encourage club engagement in the community and the potential for interested active learning using horses on the Ara. Additionally, clubs could consider what small business opportunities they want to offer as keyproviders of horse resources and knowledge.

BIKE TRACK

Post-cyclone insights saw a number of communities identify a lack of bikes in decent condition for tamariki and rangatahi. Aspirations for some schools across the coast is the development of bike tracks on school spaces to help the student gain confidence in their abilities.

The interest from whānau and kura to support tamariki with bike confidence could connect well to active learning on the Ara while also provide greater rationale to increase student access to bikes and bike maintainance knowledge to ensure students are able to access the Ara. The planned development of a number of pump tracks up the Coast from the Adventure Trust creates further opportunities.

RUKU MOANA

As rugby clubs have a wider community function than just a sports club, engagement to understand the aspirations and dreams of whānau affiliated to the clubs has seen a diverse range of activities being developed. Examples of this include the development of community containers with gear to allow for diving, fishing, and surfing opportunties. These exist in Wharekāhika and Waipiro Bay, but clubs are looking to develop access to these resources. Access to the Ara will provide new spaces for tamariki and rangatahi to play, gather and learn in the ways of their tipuna.

Case Study

18. TE ARA PATUPAIAREHE

NOVEMBER 2021

Bringing Pūrakau to Life - Encouraging Physical Activity as a Secondary Benefit to Sharing Matauranga

Tamariki from Te Kura Kaupapa Māori o Te Waiū o Ngāti Porou designed houses for Patupaiarehe (fairies) to activate the stories of Kuini Moehau, a prominent Ngāti Porou storyteller and composer.

These were installed along the walking path on Manutahi hill in Ruatoria, and lit with light installations from Te Tairāwhiti Arts Festival.

The purpose of Te Ara Patupaiarehe was the sharing of Matauranga Māori. How this was activated was through physical activity, in getting out for a hīkoi.

This collaboration between community, artists and agencies is a testament to the locally-led approach supported by the Community Connector Role within Sport Gisborne Tairāwhiti.

19. RISKS AND CONSIDERATIONS

Due to the location, distance, and elements of the Ara, it is recommended that users pre-plan their walk and that they familiarise themselves with current information pertaining to the areas that they will be visiting. Having information readily available through a range of channels for them to do so will be important in ensuring the safety of recreational users.

This section outlines examples of four tools that can be utilised to support greater safety - 'Plan My Walk', emergency plans, QR Codes, and a Te Ara Tipuna passport app.

Plan My Walk, that is managed by the NZ Mountain Safety Council, is an example of a resource that can be used for planning all trail journeys here in Aotearoa and could be utilised by this project. The information is updated regularly and is very useful for all types of hikes and trails.

Users should have an emergency plan, and the following are key questions that the emergency plan should answer:

- Will there be reliable cell service?
- Am I bringing a fully charged phone and a portable charger? If not;
  - Is someone bringing a personal locator beacon, satellite messaging device that can get emergency messages out by pinging satellites with GPS data, or satellite phone?
- If there's an emergency, does the trail have its own emergency number, or should users call 111?

Another tool that could be utilised to help mitigate safety risks to recreation users of the Ara are QR Codes. QR Codes have been used all around the world as a tool and to link to web pages that can share detailed information.

RISKS AND CONSIDERATIONS

On a nature trail, QR Codes can provide:

- Detailed safety instructions, precautions, and details about prohibited areas.
- Maps at various points to ensure users do not get lost.
- Emergency contact numbers and other details.
- Information about the do's and dont's for those accessing the Ara.

An additional benefit to utilising QR codes is that they can also provide a range of other pertinent information or opportunities to enhance the experience for users of the Ara. Examples include:

- Providing feedback forms or allowing users to 'leave a comment'.
- Opportunities for users to share posts on social media.
- Provide fun/informative questions or games.

Finally, it would be beneficial that a passport app is available for users of the Ara. The passport can provide:

- Up-to-date information about track conditions. This could be similar to the Plan My Walk app by the NZ Mountain Safety Council, or it could link to the NZ Mountain Safety Council within the app. https://planmywalk.nz/tracks
- Information on track closures.
- Emergency phone numbers (111, local police, and search and rescue).
- High quality and up-to-date weather alerts: The safety of track users will be dependent on this, therefore it would be advised to have the passport linked to Metservice or NIWA weather.
- Commentary along the way that can cover pūrākau, historical events, and contemporary stories of people and places.
- Maps and elevation profiles of each day/section of the trail.
- Advise users of their responsibilities regarding preparedness including essential items they should take: Emergency Locator Beacon, First Aid Kits, and bike repair kits.
- Environmental care: Connecting the trail to the Tiaki Promise (https://www.tiakinewzealand.com/) would help inspire visitors to travel the track safely and conscientiously with care for our natural world in Aotearoa.
- Frequently asked questions.
- Significant cultural and tourist sites along the way. Areas to be mindful of and to use tikanga, for example urupa.
- Tikanga.
- Accommodation options: Marae stays, camp sites, huts, shelters and toilets and carpark locations.
- Links to the social media pages: hashtags people can use in their own posts, such as #tearatipuna.
- Feedback form for users of the track.

Having marker posts every kilometre of the track will be useful for those walking, biking, or horse riding the trails to know how far they have come, but even more importantly they can be used for locating those who require rescuing or assistance in an emergency. With the introduction of Star Link satellite coverage coming in late 2024, there will potentially be 100% cell phone coverage.

RISKS AND CONSIDERATIONS

Civil Defence hubs have been in operation on the Coast in response to the significant emergency of Cyclone Gabrielle. These hubs are now being equipped with enhanced equipment and volunteers are being trained to respond efficiently.

A notable benefit of Te Ara Tipuna being constructed will be that sections of the trail can be built to support emergency vehicles such as St Johns quad bikes and Can-Ams. These trails can also be used during times of state highway disruption, such as road closures. The Tokomaru Bay to Ruatoria section of trail is being proposed as the first section to be built. It will be able to accommodate quad bikes for this type of purpose if needed.

There are a range of health and safety risks that will occur from both locals and visitors having greater access to te taiao, and specifically hazards such as isolated areas and waterways, and extreme changes in weather. The type and severity of risk can also depend upon the mode of transport being used. A detailed breakdown of risks and key mitigations is included as Appendix C.

Consideration will also have to be given to managing the balance between the increased tourism that will occur with the development of the Ara, and the protection of recreational sites of significance for local communities, given the Ara will provide greater accessibility for all.

20. RESOURCE MANAGEMENT ACT AND STATUTORY PLAN DOCUMENTS

This assessment of Te Ara Tipuna responds to the high-level directive of Section 7(c) of the Resource Management Act 1991 which requires particular regard – **"in relation to managing the use, development, and protection of natural and physical resources" – to "the maintenance and enhancement of amenity values".**

Amenity values are defined by the Act to mean **"those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes**" (Section 2).

The Tairāwhiti Resource Management Plan is the operative, unitary plan for the Tairāwhiti Region. Its Regional Policy Statement addresses issues of access to the region's natural environment and landscapes.

Objective B9.2.1 (Natural Resources) aims to ensure **"Maintenance or enhancement of public access to and along rivers, lakes and the coastal marine area."** This is enacted through the subsequent policy 1:
"In order to recognise the national importance of maintaining and enhancing public access to and along the coastal marine area, lakes and rivers, management restricting access should only be imposed where such management is necessary."

The NZ Coastal Policy Statement (2010) prioritizes the protection and preservation of coastal resources, including natural, cultural, and recreational values. Te Ara Tipuna is likely to align with these objectives through improving access to otherwise inaccessible areas of coastline. Policy 19 aims to:

RESOURCE MANAGEMENT ACT AND STATUTORY PLAN DOCUMENTS

"Maintain and enhance public walking access to, along and adjacent to the coastal marine area by (...) identifying opportunities to enhance or restore public walking access, for example where (...) access to areas or sites of historic or cultural significance is important."

The plan also protects access to identified surf breaks of National significance. Within Ngāti Porou rohe, identified and protected surf breaks exist at Makorori (2), Wainui (3), and Tuamotu Island. None have been identified within Te Whānau a Apanui rohe. Improvements to access to these sites would be in strong alignment with the plan's associated policies.

2. Strategic context

Tairāwhiti 2050 is Gisborne District Council's Spatial Plan – a document which sets a 30-year vision for the development, preservation and enhancement of the Tairāwhiti region. Outcome four of the plan is that:

"Our communities and businesses are connected to each other and to our markets by a safe, efficient and integrated transport network. Walking, cycling and public transport are preferred choices."

One way that this is foreseen is through outcome six:

"Develop a wider regional walking and cycling trail network that provides connections between schools, townships and community spaces, and provides a variety of must-visit experiences for visitors."

The Tairāwhiti region doesn't yet have an adopted walking and cycling strategy. This has been in development since 2022, however has been delayed due to the impact of Cyclones Gabrielle and Hale.

The Department of Conservation's East Coast Conservation Management Strategy (1998) identifies strategic implications for the East Coast sub-region, including:

Improvement of access and right of way issues throughout the subregion.

Investigation of further coastal recreation opportunities in the Hicks Bay and Lattin Point area, and of walkways generally.

It is evident the Ara has a strong alignment with the key regional plans that relate to recreational activity.

21. ACKNOWLEGDEMENTS

Te Runanganui o Ngāti Porou
Sport NZ - Ihi Aotearoa
Herenga ā Nuku - Outdoor Access Commission
Gisborne District Council
Sport Bay of Plenty
Recreation Aotearoa
Tairāwhiti Adventure Trust
NZ Mountain Safety Council
Te Ara Tipuna Project Team
The Planning Collective

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DOC walking track categories:
https://www.doc.govt.nz/parks-and-recreation/things-to-do/walking-and-tramping/track-categories/
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Strava for the recreational road use segment data -
https://www.strava.com/login

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https://www.treasury.govt.nz/sites/default/files/2007-09/tgls-durie.pdf

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https://www.stats.govt.nz/tools/2018-census-place-summaries/gisborne-region#population-and-dwellings

Sport NZ: https://sportnz.org.nz/media/nhqbuato/sroi-new-zealand-summary-report-6_17.pdf

Iwi vision: http://www.apanui.co.nz/home
https://www.govt.nz/browse/history-culture-and-heritage/treaty-settlements/find-a-treaty-settlement/ngati-porou/ngati-porou-deed-of-settlement-summary/#:~:text=Ng%C4%81ti%20Porou%20is%20one%20of%20the%20largest%20iwi,south%2C%20covering%20an%20area%20of%20about%20400%2C000%20hectares.

East Coast Recreation and community groups

Ngati Porou Surf Life Saving Club	
Ngati Porou East Coast Rugby	Ruatoria
Tokomaru Bay United Sports Club	Tokomaru Bay
Uawa Surf lifesaving Club	Tolaga Bay
Uawa Tiaki Tai - Hinekura Waka Ama	Tolaga Bay
Gisborne Cycle Tours	Gisborne
Hicks Bay & Tikitiki Boxing	Hicks Bay / Tikitiki
Ruatoria Boxing Club	Ruatoria
Ngati Porou Taekwondo	Tikitiki
Uawa Sports Club	Tolaga Bay
GTRL / Paikea Rugby League	
Turanga Touch	
Gisborne Boardriders Club	Gisborne and multiple locations up coast
Te Kura a Wao Charitable Trust	
Tairāwhiti Voyaging Trust	
Te Araroa Districts and Progression Assn	
Ruatoria City Sports Club	Ruatorea
Tolaga Bay Golf Club	Tolaga Bay
Tolaga Bay Inn Charitable Trust	Tolaga Bay
Tolaga Bay Bowling Club	Tolaga Bay
East Coast Boxing Association	
Hikurangi Sports Club	
Wiwi Nati Boot Scooter	Ruatorea
Motu Trails	Ōpōtiki / Motu
Eastender Horse Treks	Tikitiki
Uawa Horse Sports	Uawa
Lysnar Valley Equestrian	Wainui / Okitu
Kaupoi Adventures	Ruatōrea
Tairāwhiti Waka Hourua	
Mahi Atu Charitable Trust	Ruatōrea
Hikurangi Enterprises	
Nāti Kai	
Stand Fast Horse Treks	

Sculptures adjacent to Nelson Rail Reserve pathway

Railway hut and wagon on Little River Rail Trail, Canterbury (photo: Chris Freear)

3.2 General Design Specifications

Six Grades of off-road trail relating to level of difficulty are presented in Table 2. These Grades have been derived from the International Mountain Bike Association's trail rating system. Guidelines from the Department of Conservation, and Mountain Bike New Zealand were used when developing these criteria and characteristics.

The Grade system is important for distinguishing between users' abilities and desired ride characteristics. From an economic point of view, it may be best to design routes for less experienced or less energetic riders to maximise market potential (Grades 1 and 2). Additional challenges can be built in for more advanced riders to ensure their appreciation of the trails (Grades 3 and higher).

DOC's *Track Construction and Maintenance Guidelines* (2008) provides a comprehensive account of the various stages of producing off-road trails. Designers are directed to sections of the DOC guide for subsequent considerations.

IMBA's *Trail Solutions* (2004) provides excellent off-road trail building advice for all stages of trail planning and construction. Its main strengths are proven design guidance for fun and sustainable trails. It is widely used by those building mountain bike trails in New Zealand.

It is most important that the trail's Grade does not increase more than one Grade over the course of the route. It is acceptable to have short sections of a trail one Grade more difficult than the intended Grade, but it is generally undesirable to have harder sections of trail as some riders are likely to be forced to walk these sections. There is no point building a path that incorporates Grades 2 to Grade 4, as the Grade 4 sections will be impossible to negotiate by those riders whose level of experience and skill is suited for a Grade 2 trail. It will be necessary to improve the Grade 4 sections to Grade 3 standard, or it will not be necessary to build Grade 2 sections, as Grade 3 features will suffice.

Table 2: Design specifications for off-road trails

Grade	Grade Description
1.  	**Description**: Flat, wide, smooth, trail. Trail feels safe to ride. Ideal as a first ride for non-cyclists, and those wanting an easy gradient or experience. Trail allows for cyclists to ride two abreast most of the time, and provides a social component to the ride. Cyclists will be able to ride the total distance of the trail without dismounting for obstacles. **Gradient**: 0-2 degrees for at least 98% of trail; between 2 and 3 degrees for no more than 100 metres at a time, and between 3 and 4 degrees for no more than 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 4 degrees for up to 100 m). Sealed trails can be steeper (same as the equivalent Grade of on-road trail; see Table 13). **Width**: 'Double trail' preferred = 2.5 m to 4 m for 90% of trail, where cyclists may ride side by side. 'Single trail' width of 1.5 m, with 1.2 m minimum. Horizontal clearances as in Section 3.4. **Radius of turn**: 6 m minimum to outside of turn. **Surface**: Compacted/stabilised base course, under a top course aggregate of maximum AP20 mm. The surface shall be smooth and even, and easy to ride in all weather conditions. **Watercourses**: All water courses bridged **Bridge Width:** Recommended bridge width of at least 1.5 m, absolute minimum width of 1.2 m with handrail/barrier to fall. The approach should be the same width as the structure for 10 metres. **Obstacles**: None. No stiles. Cattle stops should preferably be at least 1.5 m wide, and minimum 1.2 m wide. **Length**: 3.5-4.5 hours/day (30-50 km/day). **Barriers/Guard rails**: Areas such as bluffs or bridges where a fall would result in death or serious harm require hand-rails.

Grade	Grade Description
2.  	**Description**: Some gentle climbs, smooth trail. Suitable for confident beginner riders, the trail is predictable with no surprises. Social component with riders able to ride side by side at times, but possibly large sections of single trail. **Gradient**: 0-3.5 degrees for at least 95% of trail; between 3.5 and 5 degrees for no more than 100 metres at a time, and between 5 and 6 degrees for no more than 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 8 degrees). Sealed trails can be steeper (same as the equivalent Grade of on-road trail; see Table 13). **Width**: Between 0.9 m and 1.5 m for single trail and minimum 2.2 m for double trail sections with adequate clearances. Horizontal clearances as in Section 3.4. **Radius of turn**: 4 m minimum with at least 5 m desirable to outside of turn. **Surface**: Compacted/stabilised base course, under a maximum top course aggregate of maximum AP30 mm. The surface should be smooth and easy to ride in all weather conditions. **Watercourses**: Watercourses bridged, except for fords with less than 100 mm of water in normal flow, which can be easily ridden. Surface should be as smooth as adjacent trail. **Bridge Width:** Recommended bridge width at least 1.5 m, minimum width of 1.0 m with handrail/barrier to fall. The approach should be the same width as the structure for 10 metres. **Obstacles**: Some rocks/roots/ruts that can either be avoided, or are less than 50 mm high. No stiles. Cattle stops should be minimum 1.2 m wide. **Length**: 4-5 hours/day (30-50 km/day). **Barriers/Guard rails**: Areas such as bluffs or bridges where a fall would result in death or serious harm require hand-rails.
3.  	**Description:** Narrow trail, there will be some hills to climb, obstacles may be encountered on the trail, and there may be exposure on the edge of the trail. **Gradient:** 0-5 degrees for at least 90% of trail; between 5 and 7 degrees for no more than 100 metres at a time, and a maximum of 10 degrees for no more than 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 11 degrees). Sealed trails can be steeper (same as the equivalent Grade of on-road trail; see Table 13). **Width:** 0.9 m for 90% of the trail, 0.6 m minimum with adequate clearances. Horizontal clearances as in Section 3.4. **Radius of turn:** 2.5 m minimum, with at least 4 m desirable to outside of turn. **Surface:** Generally firm, but may have some short muddy or loose sections. **Watercourses:** Watercourses bridged, except for fords with less than 200 mm of water in normal flow, which can be easily ridden. **Bridge Width:** Recommended at least 1.0 m; minimum 0.75 m deck if the width at handlebar height is 1.2 m. If there are no handrails, then minimum width of 1 m for structures less than 0.5m high. **Obstacles:** Occasional rocks/roots and ruts may be up to 100 mm high/deep and may be unavoidable. **Length:** 4-6 hours/day (30-50 km/day for an intermediate cyclist). **Barriers/Guard rails:** Areas such as bluffs or bridges where a fall would result in death require hand-rails. Areas where a fall would likely result in serious harm require either hand-rails or sight rails or a warning sign, depending on the nature of the drop off and likelihood of a fall.

Grade	Grade Description
4.  	**Description:** Steep climbs, with unavoidable obstacles on a narrow trail, and there will be poor traction in places. Possibly some walking sections. **Gradient:** 0-7 degrees for at least 90% of trail; between 7 and 9 degrees for no more than 100 metres at a time, and maximum 12 degrees for up to 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 15 degrees). Sealed trails can be steeper (same as the equivalent Grade of on-road trail; see Table 13). **Width:** 0.6 m minimum on steep terrain with drop-offs, 0.3 m minimum on flat ground. Horizontal clearances as in Section 3.4. **Radius of turn:** 2 m minimum, with 3 m desirable to outside of turn. **Surface:** Firm and loose. **Watercourses:** Watercourses bridged, except for fords with less than 300 mm of water in normal flow, which can be easily ridden. **Bridge Width:** Recommended 1.0 m; minimum 0.6 m. **Obstacles:** Many rocks/roots and ruts up to 200 mm high/deep. Also some purpose-built obstacles to liven things up, such as drop-offs and jumps. **Length:** 4-8 hours/day for advanced cyclists. **Barriers/Guard rails:** Areas such as bluffs or bridges where a fall would result in death require hand-rails. Areas where a fall would likely result in serious harm require either hand-rails or sight rails or a warning sign, depending on the nature of the drop off and likelihood of a fall.
5.  	**Description**: Technically challenging, with big hills, often lots of rocks, some walking likely. May traverse a wide range of terrain and cater for riders with expert skills and experience. Popular trails of this Grade should be one-way. **Gradient**: 0-10 degrees for at least 90% of trail; between 10 and 13 degrees for no more than 100 metres at a time, and between 12 and 15 degrees for no more than 10 m at a time. Sealed trails can be steeper (same as the equivalent Grade of on-road trail; see Table 13). If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 20 degrees). **Width**: 0.4 m average, 0.25 m minimum. Horizontal clearances as in Section 3.4. **Radius of turn**: 1.5 m minimum, with more desirable. **Surface**: Huge variety of surfaces. **Bridge Width:** Recommended 0.8 m; minimum 0. m. **Obstacles**: Many rocks, roots and ruts, up to 0.6 m high/deep. If there are not obstacles then they are likely to be added afterwards (i.e. jumps, and wooden structures). **Length**: 4-12 hours/day.
6.  	**Description**: Purpose built extreme Downhill/Free ride trails. Extremely steep and dangerous jumps and obstacles. Fear factor is essential. High risk of injury. **Gradient**: 0-15 degrees for at least 90% of trail; between 15 and 17 degrees for no more than 100 metres at a time, and between 17 and 20 degrees for no more than 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (no specific maximum). **Width**: Minimum width 100mm. Recommend these are one-way tracks. **Radius of turn**: 1 m absolute minimum, but the more the better. **Surface**: Anything goes – if it is not rock or timber then steep sections will not sustainable. **Obstacles**: 'North Shore' wooden obstacles, big jumps, etc **Length**: Trail may take less than a minute to ride, but will be ridden over and over again.

4.2 General Design Specifications

Table 12 presents the design specifications for on-road trails categorised into six trail Grades. These Grades are designed to correspond to the six off-road Grades but no on-road facilities would be specifically designed for an “extreme” (Grade 6) level (or be considered suitable for the NZCT "brand" in the on-road context). If a route involves both on-road and off-road sections, the Grades of the two components should be reasonably consistent. As with off-road routes (section 3.2), ideally on-road trail Grades should not change dramatically over the course of the route (e.g. increase more than one Grade above the stated overall Grade).

Table 12: Design specifications for on-road trails

Grade	Grade Description
1.  	**Description**: On-road route suitable for cyclists with little on-road cycling experience and low level of fitness. Mostly flat. **Traffic conditions**: Low motor traffic volumes and speeds and high quality trails, as shown in Figure 45 (Section 4.5). **Width**: As shown in Section 4.7. **Gradient**: 0-2.5 degrees for at least 98% of route; between 2.5 and 3.5 degrees for no more than 100 metres at a time, and between 3.5 and 4.5 degrees for no more than 10 m at a time. If the route is designed and promoted to be ridden predominantly in one direction then the downhills can be steeper (up to 4.5 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4, Section 3.3). **Surface**: Gravel roads in low volume, low speed situations. Asphaltic concrete or concrete is smoother than chipseal. **Road requirements**: No multi-lane roundabouts. Cycling provision at signalised intersections. Crossing facilities if cyclists required to cross roads. **Length**: 3.5-4.5 hours/day (30-50 km/day)
2.  	**Description**: On-road route suitable for cyclists with little on-road cycling experience but reasonable level of fitness. Some gentle climbs. **Traffic conditions**: Low motor traffic volumes and speeds and high quality roads, as shown in Figure 45 (Section 4.5). **Width**: As shown in Section 4.7. **Gradient**: 0-4 degrees for at least 95% of route; between 4 and 5 degrees for no more than 100 metres at a time, and between 5 and 7 degrees for no more than 10 m at a time. If the route is designed and promoted to be ridden predominantly in one direction then the downhills can be steeper (up to 7 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4, Section 3.3). **Surface**: Gravel roads in low volume, low speed situations. Asphaltic concrete or concrete is smoother than chipseal. **Road requirements**: No multi-lane roundabouts. Cycling provision at signalised intersections. Crossing facilities if cyclists required to cross roads. **Length**: 4-5 hours/day (40-60 km/day)

Grade	Grade Description
3.  	**Description:** On-road route suitable for cyclists at least 12 years old with some on-road cycling experience and reasonable level of fitness. Moderate exertion levels expected. Some steep climbs. **Traffic conditions:** As shown in Figure 46 (Section 4.5). **Width**: As shown in Section 4.7. **Gradient:** 0-6 degrees for at least 90% of route; between 6 and 8 degrees for no more than 100 metres at a time, and between 8 and 10 degrees for no more than 10 m at a time. If the route is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 10 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4, Section 3.3). **Length**: 4-6 hours/day (50-80 km/day)
4.  	**Description:** On-road route suitable for cyclists at least 12 years old with some on-road cycling experience and reasonable level of fitness. Considerable exertion levels expected. Some steep climbs. **Traffic conditions:** As shown in Figure 46 (Section 4.5). **Width**: As shown in Section 4.7. **Gradient:** 0-8 degrees for at least 90% of route; between 8 and 10 degrees for no more than 100 metres at a time, and between 10 and 13 degrees for no more than 10 m at a time. If the route is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 13 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4, Section 3.3). **Length**: 4-8 hours/day (60-100 km/day)
5.  	**Description:** On-road route suitable for cyclists at least 14 years old with considerable on-road cycling experience and reasonable levels of fitness. Considerable exertion levels expected with some steep climbs. The speed and volume of adjacent motor vehicle traffic will be considered unpleasant and/or unsafe by many Grade 1 and Grade 2 trail users. **Traffic conditions:** As shown in Figure 47 (Section 4.5). **Width**: As shown in Section 4.7. **Gradient:** 0-10 degrees for at least 90% of route; between 10 and 15 degrees for no more than 100 metres at a time, and between 15 and 18 degrees for no more than 10 m at a time. If the route is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 18 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4, Section 3.3). **Length**: 4-8 hours/day (70-120 km/day)

Grade	Grade Description
6.  	**Description**: On-road route suitable for cyclists at least 16 years old with considerable on-road cycling experience, and possibly high levels of fitness (or an e-bike). Considerable exertion levels expected with some steep climbs possible. The speed and volume of adjacent motor vehicle traffic will be considered unpleasant and/or unsafe by Grade 3-5 riders; however, at certain times of the day or year, when traffic volumes are lower, these routes may feel similar to Grades 4 or 5. **Not currently appropriate for Heartland Rides and plans should be in place to improve the standard to Grade 5 or better.** *Note that routes are not 'extreme' in the same way as off-road Grade 6 routes.* **Traffic conditions:** Based on Grade 5, as shown in Section 4.7, plus Grade 6 riders will also accept lane sharing on an open road with AADT >2000 for short stretches (i.e. up to 100m uphill, 500m on the flat and 2000m downhill where sight-lines are good and speed differentials are less than 30 kph). Riding on roads with a high AADT may be acceptable even for Grade 5 riders by avoiding peak traffic periods. Tolerances for traffic will change where a significant proportion of heavy vehicles are present. **Width**: As shown in Section 4.7. **Gradient:** 0-10 degrees for at least 90% of trail; between 10 and 15 degrees for no more than 100 metres at a time, and between 15 and 18 degrees for no more than 10 m at a time. If the track is designed and promoted to be ridden predominantly in one direction, then the downhills can be steeper (up to 18 degrees). Unsealed roads should be less steep (same as the equivalent Grade of off-road trail; see Table 4). **Length**: Unlimited number of days or distance.

Figure 51 (Section 4.9) summarises the key differences between the Grades of on-road routes, in terms of traffic volume and shoulder width, and which combinations are considered unacceptable.

4.3 Traffic speed management

A key tool for ensuring safe and enjoyable on-road cycling is to create road environments that support appropriate traffic speeds. The likelihood of death or serious injury from traffic collisions are greatly reduced when traffic impact speeds are reduced (especially below 60 km/h). The introduction of new *Speed Management Guidelines* by NZTA (2016a) allows for the easier specification of speed limits below the traditional 100 km/h (rural) and 50 km/h (urban) defaults.

Appendix – Te Ara Tipuna – Risks and Mitigations

Table 1 – General Risks

Risk of drowning increasing due to lack of local awareness and safety in bodies of water along the trails, and greater accessibility to aquatic areas.	Key aquatic hazards to be identified and for this information to be made available to users. Possible use of signage. Individuals to be reminded they need to take responsibility for their safety and assess the environment they are in and their swimming abilities, as well as adhering to local rules and regulations.
Disruption for local communities to access existing recreation sites during construction of the Ara.	Minimal disruption expected, however, this needs to be considered during the resource consent process for each section of the build.
Access to Highway 35 is compromised due to weather events and roading infrastructure issues.	Highway 35 access is heavily reliant on good weather therefore if conditions are extreme, promote users avoiding the Ara.
Implications of tourists impacts on the environment and existing hau kainga kapata kai	Information and passport to highlight existing spaces that can be accessed by the general public. Working closely with landowners, whānau and hapū to ensure local kapata kai are excluded from this information.
Potential for camping outside of designated spaces.	Promote the Tīaki principles of no trace, which advocate for minimising impact on the environment. That includes concepts such as packing out all trash, including food scraps, leaving campsites in their natural condition, avoiding damaging vegetation, disturbing wildlife, or leaving any lasting traces of the presence of people.
Potential issues with water quality making trail users sick.	All trail users to use water at own risk. Suggest carrying water filter as part of kit checklist.
Use of roads for parts of the trail increases the risk of collision with logging trucks and other vehicles.	Project team to review the narrow and risky spaces of the trail and investigate potential mitigations.
Risk of damage or destruction to trail spaces due to disengagement and lack of buy-in from locals.	Social and Cultural Assessment teams are leading good engagement with communities, and leadership for the project is well connected to whānau, hapū, iwi and landowners.
Potential for vehicles on beaches where the trail exists.	Speed limit signs Education for drivers around adjusting speed to suit the conditions and being aware of the presence of other beach users.
Damage, slips on the trails making them unsafe to use	The authorities responsible for trail maintenance and management will assess the extent of the

	damage and the associated safety risks based on the assessment, the authorities will make a decision to close the trail temporarily until repairs can be made or until the trail is safe for public use again.
Hunting issues	Hunting activities that involve the use of firearms or other hunting equipment, which can pose safety risks to trail users should not be permitted on or near the trail.

Table 2 – Risks for Walkers

Risk identified	**Solutions**
Users get lost	Well-marked posts every kilometre will ensure that participants are on the correct trail and can be used as a prominent marker to reference in an emergency. Use of QR codes and/or other online information to provide location advice.
Injury due to falling or slipping – undulating ground.	Information stated online as well as the Ara Tipuna passport should advise participants to wear appropriate footwear. Promoting the importance of staying on the well-marked trails only, along with the need to act carefully and responsibly, and keeping a sensible distance between users of the Ara.
Medical events brought about by fitness levels not being up to the standard required.	Ensure information is provided through a range of channels that clearly states the difficulty levels of tracks and the standard of fitness required.
Stray animals causing injury i.e. deer, pigs, cattle, sheep etc.	Advising users to keep a safe distance from stray animals, and to avoid approaching or attempting to touch or feed the animals. Opportunities exist and are promoted for the authorities to be notified about stray animals. Landowners are regularly reminded of their obligations to ensure animals are contained.
Extreme weather conditions	Information stated online as well as the Ara Tipuna passport should advise participants to prepare accordingly – ensuring updated weather forecasts are received and including the wearing of appropriate clothing. If conditions are extreme, recommendation that walking sessions are postponed. Potential to close the track during extreme weather events. Supply of huts and shelters that can be utilised in emergency situations.

Dehydration	Water access located throughout the trail at certain points that are far from already existing areas with water access.
Injuries that require first aid i.e. cuts, abrasions etc.	Participants are advised to carry basic first aid in case of emergencies that require self-aid.
Emergency injuries that require uplift due to participant becoming immobilised.	Notify emergency services through cell phone or beacon. Use kilometre marked posts or any significant feature as a reference for uplift.

Table 3 – Risks for Bikers

Risks Identified	Solutions
Bike malfunction	Advise riders to ensure the bike of choice is suitable for all terrains to be traversed, and that they have the confidence/skill-level for difficult/ technical areas of the trail. Promote regular maintenance and inspections of the bike/s being used during the ride. Promote the essential need for a bike repair kit.
Use of e-bikes on the tracks could create potential dangers for walkers and horse riders given the speeds that can be produced.	15-20km p/h is recommended to reduce the risk of collisions/injury. If risk is deemed too high, then consider not allowing e-bikes on parts of the Ara.
Injuries that require first aid i.e. cuts, abrasions etc	Participants are advised to carry basic first aid in case of emergencies that require self-aid.
Emergency injuries that require uplift due to participant becoming immobilised.	Notify emergency services through cell phone or beacon. Use kilometre marked posts or any significant feature as a reference for uplift.
E-bike users	All E-bike users are to be familiar with the regulations and guidelines specific to e-bike use on trails and beaches.
Areas of the Ara are not appropriate or safe for baby/child trailers.	Health and Safety to review this once the trail has been developed. Guidance to be provided in the passport/website.

Table 4 – Risk for Horse Trekkers

Risks Identified	Solutions
Unfit/unhealthy horses used on the Ara.	Education to be provided that horses used should have a sufficient level of cardiovascular fitness to handle the physical demands of the trail.

	Horses should also be strong and conditioned to handle the demands of the trail, which can involve uneven terrain, steep inclines or descents, and various gaits. Any businesses that provide horse trekking services will need to be aware of their health and safety obligations.
Rider experience	Riders should have a good understanding of basic riding skills. They should be able to maintain control and guide the horse effectively in various situations.
Hydration and nutrition	Water points located throughout the trail. Signage may be required that advises the use of local waterways is permitted at the user's own risk. There are grass areas for feeding, however, advise riders to carry food.
Injuries that require first aid i.e. cuts, abrasions etc	Participants are advised to carry basic first aid in case of emergencies that require self-aid.
Emergency injuries that require uplift due to participant becoming immobilised.	Notify emergency services through cell phone or beacon. Use kilometre marked posts or any significant feature as a reference for uplift.

BIKING TRAIL DISTANCES AND TIME

DAY	ESTIMATED GRADE *	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO BIKE (at 10 km/hr) *	TIME TO BIKE (WITH ELEVATION AND BREAKS FACTORED) *
Day 1 - Okitu Gisborne to Waihau Bay (Loisels)					
1	2 EASY	11.7	472	1 hr 10 mins	2 hr 30 min
2	2 EASY	8	399	48 mins	2 hr
3	2 EASY (1 BIG CLIMB)	18.7	558	1 hr 52 mins	3 hr 30 min
		38.4 KM		**3 hrs 50 min**	**8 hr**
Day 2 - Waihau Bay - Anaura Bay					
4	2 EASY (1 BIG CLIMB INTO TOLAGA BAY)	12.2	420	1 hr 13 mins	2 hr 30 min
5	2 EASY	10	235	1 hr	2 hr
6	3 INTERMEDIATE (BUSH SECTIONS AND A BIG CLIMB)	9.6	583	57 mins	2 hr 30 min
		31.8 km		**3 hr 10 min**	**7 hr**

*Estimated grade is done using the descriptions from NZTA cycle route grading system.
*Added an extra hour of riding per 600 m elevation. Times rounded up to nearest half hour as extra time for stops and refreshments
*Tairawhiti Adventure Trust consulted over bike times.

DAY	ESTIMATED GRADE *	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO BIKE (at 10 km/hr) *	TIME TO BIKE (WITH ELEVATION AND BREAKS FACTORED) *
Day 3 - Anaura Bay to Whareponga					
7	3 INTERMEDIATE (5KM CLIMB THROUGH BUSH)	21	1223	2 hrs 6 mins	4hr 30 min
8	3 INTERMEDIATE (CLIMBING, BUSH)	21	1028	2 hrs 6 mins	4 hr 30 min
9	2 EASY	12	407	1 hr 12 mins	2 hr 30 min
		54 km		**5 hr 24 min**	**11 hr 30 min**
Day 4 - Whareponga to Tikitiki					
10	3 INTERMEDIATE (BUSH, CLIMBS)	13.4	525	1 hr 20 mins	3 hr
11	2 EASY	12.2	236	1 hr 13 mins	2 hr
12	3 INTERMEDIATE (ON STATE HIGHWAY 35)	21.2	340	2 hrs 7 mins	3 hr 30 min
		46.8 km		**4 hr 40 min**	**8 hr 30 min**

DAY	ESTIMATED GRADE *	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO BIKE (at 10 km/hr) *	TIME TO BIKE (WITH ELEVATION AND BREAKS FACTORED) *
Day 5 - Tikitiki to Te Araroa					
13	2 EASY (FOLLOWS SMALL COUNTRY ROAD)	13.1	358	1 hr 18 mins	2 hr
14	3 INTERMEDIATE (BUSH TRAIL)	11	442	1 hr 6 mins	2 hr
15	2 EASY	13.1	220	1 hr 18 mins	2 hr
		37.2 km		**3 hr 42 min**	**6 hr**

DAY	ESTIMATED GRADE *	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO BIKE (at 10 km/hr) *	TIME TO BIKE (WITH ELEVATION AND BREAKS FACTORED) *
Day 6 - Te Araroa to Whangaparoa					
16	2 EASY	12.5	271	1 hr 15 mins	1 hr 45 min
17	2 EASY (FOLLOWS THE WHAREKAHIKA RIVER)	21.2	433	2 hrs 7 mins	2 hr 45 min
18	3 INTERMEDIATE (SH 35 AND OFFROAD)	16.4	415	1 hr 38 mins	2 hr 45 min
		50.1 km		**5 hrs**	**7 hr 15 min**
Day 7 - Whangaparoa to Omaio					
19	2 EASY	11.1	192	1 hr 6 mins	1 hr 45 min
20	2 EASY	21.2	351	2 hrs 7 mins	2 hr 45 min
21	2 EASY	16.5	309	1 hr 39 mins	2 hr 15 min
22	2 EASY	13.1	167	1 hr 18 mins	1 hr 45 min
		61.9 km		**6 hr 10 min**	**8 hr 30 min**

DAY	ESTIMATED GRADE *	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO BIKE (at 10 km/hr) *	TIME TO BIKE (WITH ELEVATION AND BREAKS FACTORED) *
Day 8 - Omaio to Opotiki					
23	3 INTERMEDIATE (NARROW HIGHWAY)	18	427	1 hr 48 mins	2 hr 15 min
24	3 INTERMEDIATE (NARROW HIGHWAY, BIG CLIMB)	10.3	283	1 hr 1 min	1 hr 30 min
25	2 EASY	14.6	113	1 hr 27 mins	2 hr
26	2 EASY	15.2	75.2	1 hr 31 mins	2 hr
		58.1 km		**5 hr 47 min**	**7 hr 45 min**
		378.3 km total biking trail			

*Estimated grade is done using the descriptions from NZTA cycle route grading system.
*Added an extra hour of riding per 600 m elevation. Times rounded up to nearest half hour as extra time for stops and refreshments
*Tairawhiti Adventure Trust consulted over bike times.

HORSE TREKKING TRAIL DISTANCES AND TIME

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 1 - Okitu Gisborne to Whangara				
1	Pouawa (Marine Reserve)	12.7	1 hr 35 min	3 hr
2	Whangara	8	1 hr	2 hr
				5 hr
Day 2 - Whangara to Tolaga Bay				
3	Waihau Bay (Loisels)	18.7	2 hr 20 min	4 hr 30 min
4	Tolaga Bay	11	1 hr 22 min	2 hr 30 min
				7 hr

*Distance Riding New Zealand were consulted on this speed.
*An extra hour per 8 km of riding was added for rest and refreshment stops.

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 3 - Tolaga Bay to Anaura Bay				
5	Kaiaua	10	1 hr 15 min	2 hr 30 min
6	Anaura Bay	9.3	1 hr 9 min	2 hr 30 min
				5 hr
Day 4 - Anaura Bay to Waipiro Bay				
7	Tokomaru Bay	21.6	2 hr 42 min	5 hr 15 min
8	Waipiro Bay	21	2 hr 37 min	5 hr 15 min
				10 hr 30 min

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 5 - Waipiro Bay to Ruatorea				
9	Whareponga	12	1 hr 30 min	3 hr
10	Reporua Beach	11.3	1 hr 24 min	3 hr
11	Ruatorea	10	1 hr 15 min	2 hr 30 min
				8 hr 30 min
Day 6 - Ruatorea to Rangitukia Road				
12	Tikitiki	21.1	2 hr 38 min	5 hr 15 min
13	Rangitukia Road	13	1 hr 37 min	3 hr
				8 hr 15 min

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 7 - Rangitukia Road to Te Araroa				
14	East Cape Campground	11	1 hr 22 min	2 hr 30 min
15	Te Araroa	13.9	1 hr 44 min	3 hr 30 min
				6 hrs
Day 8 - Te Araroa to Potaka				
16	Hicks Bay/Wharekahika	11.8	1 hr 28 min	3 hr
17	Pōtaka	21.2	2 hr 39 min	5 hr 15 min
				8 hr 15 min

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 9 - Potaka to Waihau Bay				
18	Whangaparoa	16.7	2 hr 5 min	4 hr 15 min
19	Waihau Bay	11	1 hr 22 min	2 hr 30 min
				6 hr 45 min
Day 10 - Waihau Bay - Te Kaha				
20	Whanarua Bay	21.3	2 hr 39 min	5 hr 15 min
21	Te Kaha	16.4	2 hr 3 min	4 hr 15 min
				9 hr 30 min

DAY	FINISH LOCATION OF SECTION	DISTANCE - KM	TIME TO TREK (at 8 km/hr) *	TIME TO TREK (WITH ELEVATION AND BREAKS FACTORED) *
Day 11 - Te Kaha to Maraenui				
22	Omaio	13.2	1 hr 39 min	3 hr 15 min
23	Maraenui	18.1	2 hr 15 min	4 hr 30 min
				7 hr 45 min
Day 12 - Maraenui to Opotiki				
24	Hawai Bay	10	1 hr 15 min	2 hr 30 min
25	Ōpape	15.4	1 hr 55 min	3 hr 45 min
26	Opotiki	15.3	1 hr 54 min	3 hr 45 min
				10 hr
		375 km total horse trekking tracks		

*Distance Riding New Zealand were consulted on this speed.
*An extra hour per 8 km of riding was added for rest and refreshment stops.

WALKING TRAIL DISTANCES AND TIME

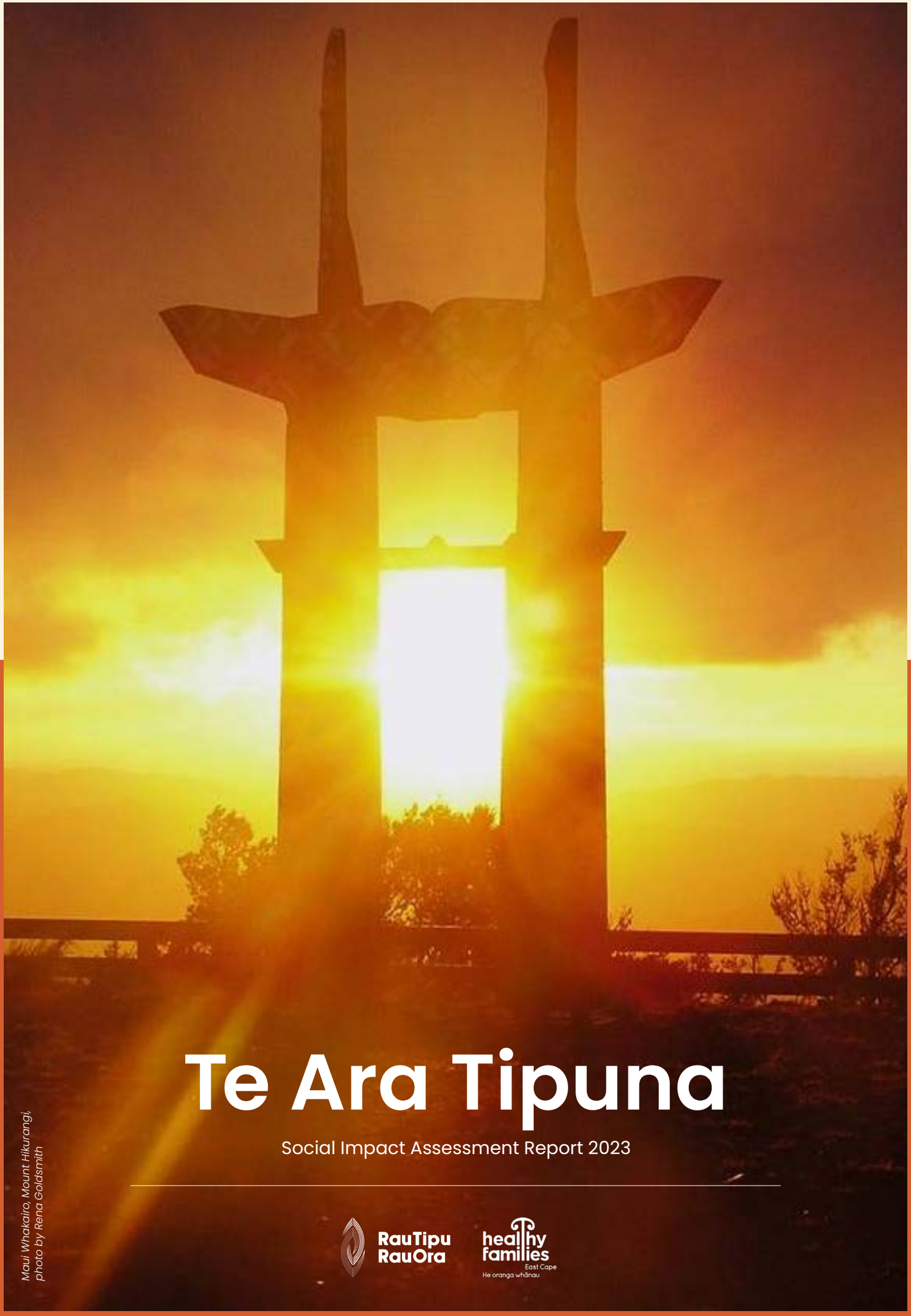
DAY	FINISH LOCATION	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO WALK (at 4 km/hr) *	TIME TO WALK WITH BREAKS *
1	Pouawa (Marine Reserve)	12.7	467	4 hrs 21 mins	5 hr
2	Whangara	8	324	2 hrs 49 mins	3 hr 15 min
3	Waihau Bay (Loisels)	18.8	564	6 hrs 6 mins	7 hr
4	Tolaga Bay	11.4	320	3 hrs 39 mins	4 hr 15 min
5	Kaiaua	9.8	300	3 hrs 13 mins	3 hr 45 min
6	Anaura Bay	9.5	499	3 hrs 37 mins	4 hr 15 min
7	Tokomaru Bay	21.3	1111	8 hrs 6 mins	9 hr
8	Waipiro Bay	21.1	1017	7 hrs 49 mins	9 hr
9	Whareponga	12.2	426	4 hrs 7 mins	4 hr 45 min
10	Reporua Beach	13.7	555	4 hrs 49 mins	5 hr 15 min
11	Ruatorea	12.3	303	3 hrs 50 mins	4 hr 30 min
12	Tikitiki	21.2	352	6 hrs 13 mins	7 hr 15 min
13	Rangitukia Road	13.4	359	4 hrs 13 mins	4 hr 45 min
14	East Cape Campground	11	425	3 hrs 52 mins	4 hr 30 min
14 (via Lighthouse)	East Cape Campground	17.8	807	6 hrs 31 mins	7 hr 15 min
15	Te Araroa	13.7	202	3 hrs 57 mins	4 hr 30 min
16	Hicks Bay/Wharekahika	11.6	233	3 hrs 29 mins	4 hr
17	Pōtaka	21.2	449	6 hrs 23 mins	7 hr 30 min
18	Whangaparoa	16.7	416	5 hrs 15 mins	6 hr

DAY	FINISH LOCATION	DISTANCE - KM	ELEVATION GAIN - METRES	TIME TO WALK (at 4 km/hr)	TIME TO WALK WITH BREAKS
19	Waihau Bay	11.2	145	3 hrs 10 mins	3 hr 45 min
20	Whanarua Bay	21.2	393	6 hrs 15 mins	7 hr 15 min
21	Te Kaha	16.6	404	5 hrs 11 mins	6 hr
22	Omaio	13.4	136	3 hrs 42 mins	4 hr 15 min
23	Maraenui	18.1	430	5 hrs 36 mins	6 hr 15 min
24	Hawai Bay	10	512	3 hrs 47 mins	4 hr 15 min
25	Ōpape	15.5	228	4 hrs 27 mins	5 hr 15 min
26	Opotiki	14.9	78.4	3 hrs 56 mins	4 hr 45 min
		387.3 km total (excluding Hiku loop and including east cape lighthouse)			
Hikurangi Loop. Day 1 (short)	**Starts end of Day 8**	21.8	346	6 hrs 10 mins	7 hr 15 min
1 (long)		32	892	10 hrs 6 mins	11 hr 45 min
2		15.8	2395	9 hrs 28 mins	10 hr 15 min
3		12.8	1152	6 hrs 11 mins	6 hr 45 min
4		12.3	208	3 hrs 58 mins	4 hr 30 min
5	Ruatorea	17.4	237	5 hrs 2 mins	5 hr 45 min
		112.1			

*15 minutes of break time per 5 km of walking.
*Determined using the Naismith Rule at a speed of 4 km/hr

Appendix 15:

Social Impact Assessment



Te Ara Tipuna

Social Impact Assessment Report 2023

RauTipu RauOra

healthy families East Cape
He oranga whānau

Maui Whakairo, Mount Hikurangi, photo by Rena Goldsmith

“Takahia nga tapuwae o nga papatipu o nga taonga wharawhara mai i Opotiki mai Tawhiti ki Whangara mai Tawhiti te parekereke o te korero te putahitanga o te tangata Hikurangi te toka whakairo“

Content

1. Introduction

This Social Impact Assessment (SIA) report is a collaboration between the Rau Tipu Rau Ora (RTRO) - Tuara and Health Families East Cape (HFEC). The RTRO team have prepared the Tairawhiti (Makorori to Potikirua) sections of the report and HFEC have prepared the Eastern Bay of Plenty (Potikirua to Opotiki) sections. The SIA has been prepared to support the resource consent application for Te Ara Tipuna (herein referred to as the Proposed Development).

Te Ara Tipuna project will build and maintain accessway infrastructure for pedestrians, cyclists and horse trekkers along a proposed trail of 500kms, from Makorori to Opotiki.

While there are many layers to this project, the restoration of connectivity to those who whakapapa to the rohe, to the whenua, kainga and korero tuku iho, stories transferred between generations to promote and preserve connections and traditions is fundamental to and embedded in Te Ara Tipuna.

"It provides a platform for whanau to connect to their whenua, whakapapa and purakau, restore connectivity between pa, hapu and taiao, while supporting whanau to start businesses; from whenua to whanau to wellbeing."[1]

Te Ara Tipuna track

Map by Sport Gisborne Tairawhiti

Key Limitations

The SIA has been carried out in the context of the proposed Te Ara Tipuna project being approved and completed. It is largely a “desktop” review based on information and insights collected from iwi profiles and reports, council plans, statistics, government policy, agency plans, media, literature and oral traditions.

Ten landowner and community engagement hui were scheduled between late April and early July 2023. Ten hui have been completed. The purpose of the hui was to inform landowners and communities of the proposed development, provide relevant background information, including a full set of maps for the initial stage of the project, and canvas the views of hui attendees on potential benefits and risks arising from the project. Full disclosure of the Te Ara Tipuna business case was enabled through the hui with people encouraged to visit the Te Ara Tipuna website through the QR code provided.

The project team will conduct a series of consultation hui with landowners to seek their advice and agreement on the exact location of the trail on their property, the prevailing kawa and tikanga and the content and presentation of narratives, signage and promotional material.

Te Ara Tipuna pamphlet

The Project Lead has stated, ‘the approval of the ‘bona fide landowners need to be secured for the trail to proceed on their land. The hapu, iwi, communities, and businesses that are likely to be impacted will be engaged as the project progresses and information sharing will be ongoing. It is anticipated that the public notification and submission period will further assist in informing the social impact effects of the project.

Recognising the limitations of the engagement undertaken with landowners and communities to date, much of the content and analysis of this SIA has been drawn from desktop reviews, preliminary insights garnered from attendees at the Te Ara Tipuna hui, and individuals across the region. Therefore, this SIA is not comprehensive or final, and is best characterised as a preliminary evidence-based report, that seeks to build discussions relating to the social impact, laying the foundations for the next phase of Te Ara Tipuna.

The cultural effects of the project will be assessed separately by mana whenua. Ngarimu Parata, of Pahou and Associates, has prepared a cultural impact assessment and this assessment will consider these impacts in detail.

The sport and recreation effects of the project will be separately assessed by Sport Gisborne Tairawhiti, and this assessment considers these impacts in detail. The ecological effects of the proposed project will be separately assessed by Tairawhiti Environment Centre and will consider these impacts in detail.

This SIA has been prepared based on the information available at the time of preparing this report.

2. Project Summary

Te Ara Tipuna proposes the construction of a 500kms trail from Makorori to Opotiki traversing the tribal land of Ngati Porou, Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatohea, who share whakapapa connections, a tradition of working together on cultural, economic and environmental and social kaupapa.

This project is a reflection of their enduring connection and commitment to working together in areas of mutual benefit and interests. Te Ara Tipuna aims to build and maintain infrastructure of accessways for pedestrians, cyclists and horse trekkers, local commuters, visitors, and whole of journey hikers, bikers and riders.

The trail begins in Makorori, a beach community on the outskirts of Gisborne which is the major urban centre within Tairawhiti and ends in the coastal community of Ōpōtiki, in the Eastern Bay of Plenty. The trail is divided into 26, day treks, averaging 26km’s per day.

There are a total of approximately 400 land blocks, from Makorori to Opotiki, involved in the project and approximately 5,000 – 6,000 number of landowners. The actual number of landowners has yet to be confirmed, as a number of the land blocks have no governance, oversight group. Te Ara Tipuna has engaged the support and services of the Tairawhiti Maori Land Court to work with land blocks to establish appropriate governance mechanisms.

This SIA gives due consideration to the interests, benefits, opportunities and risks of landowners, the four iwi, their composite hapu, whanau and marae and the interests of local communities, schools and businesses.

Existing Environment

Tairawhiti

Tairawhiti’s population is 47,517 of which 55% are Māori (Census 2018)[2]. A small percentage of the population are Pacific peoples and Asians.

The Tairawhiti economy is driven primarily by pastoral farming, horticulture, viticulture, and forestry. The Gisborne District (Gisborne and surrounding Te Tairawhiti area) has a GDP of $51,833 (2022) and currently leads the country with a deprivation index of 7.5. (MBIE)[3]

The total area of land in Tairawhiti is 835,500 hectares. 71 % of the region is classified as steep hill and in 2018 forestry activity occurred on 1186.45 hectares and horticultural activity on 10,200ha (State of Our Environment 2020 Report, Gisborne District Council)[4]

Nationally our region is renowned for its physical environment and climate, including a stunning coastline and marine environment, strong lifestyle and tourism appeal and significant Māori cultural features. Hence Tairawhiti is a region rich in outdoor activities such as waka ama, kayaking, surfing, diving, fishing mountain biking, cycling, trekking, etc.

The Ngati Porou rohe, has the highest concentration of whenua Māori in the country. Much of the land in Ngati Porou is held in Māori Land Blocks, multiple owners with individual titles, arising from the systemic conversion of land tenure from customary title in the late 19th Century. This erosion of customary title and customary practices has resulted in the alienation of whanau from their whenua and the fragmentation of whanau connection with their whenua, causing intergenerational deprivation across all spheres of wellbeing (economic, environmental).

There are 92,349 (2018 Census) iwi members who affiliate to Ngati Porou, of which 15,606 are domicile within the Tairawhiti. Historically various events, government policy, employment and education pursuits, resulted in the dispersal of 77,665 Ngati Porou iwi members throughout Aotearoa, with concentrations in Turanga-nui-a-kiwa, Tamaki Makaurau and Whanganui-a-Tara. Despite living away from their ‘wa kainga’, (home), there remains a strong sense of connection, identification and pride amongst iwi members supported by strong cultural infrastructure including 48 marae and 58 hapu. Evidence of how these cultural connections are maintained and expressed can be found in

- **Ngati.Porou.com**
- **Te Runanganui o Ngati Porou Annual reports**
- **Radio Ngati Porou**
- **Ngati Porou East Coast Rugby team,**
- **Nati Link**
- **The Annual Ngati Porou Intermarae Sports Festival aka Pa wars**
- **Hikurangi Maunga Dawn Ceremony**

Once past Turanga-nui-a-kiwa the region comprises of small settlements Tolaga Bay, Tokomaru Bay, Te Puia Springs, Ruatoria, Tikitiki Te Araroa and Wharekahika (Hicks Bay) interspersed with many independent hapu communities.

Eastern Bay of Plenty (Potikirua ki Opotiki)

The trail ends in the Eastern Bay of Plenty in the coastal community of Ōpōtiki. The Ōpōtiki District, which includes the coastal region encompassing, the Te Whanau A Apanui tribal rohe, boasts an estimated resident population of 10,500. In the 2018 Census approximately 63.7% of people in the Opotiki District identified as Māori and 50.5% identified with the European ethnic group. There are a small proportion of Pacific peoples (3.5%) and Asians (2.8%) in the community.

The economy of Eastern Bay of Plenty and the Opotiki District is driven primarily by agriculture with over 400 farms amounting to a total area of 75,660 hectares (Ōpōtiki District Council, 2023)[5]. 38% of this area is in beef and dairy farms, 29% in planted forests and 1% in horticulture units. Most of the horticultural land is planted in kiwifruit with plans for further development within this industry.

The Eastern Bay of Plenty has a well-diversified range of export-focused industries, including forestry, dairy farming, and horticulture. Kiwifruit and avocados make up some of the most significant horticulture industries across the wider region, employing over 6,000 residents and accounting for at least 80% of the national kiwifruit production (New Zealand Kiwifruit Growers, 2021)[6]. Kiwifruit is a well- established and expanding industry in the surrounds of Ōpōtiki, and there has been a rapid expansion on the East Cape around Omaio, Te Kaha, and as far as Raukokore (Explore- The East Cape, 2023)[7].

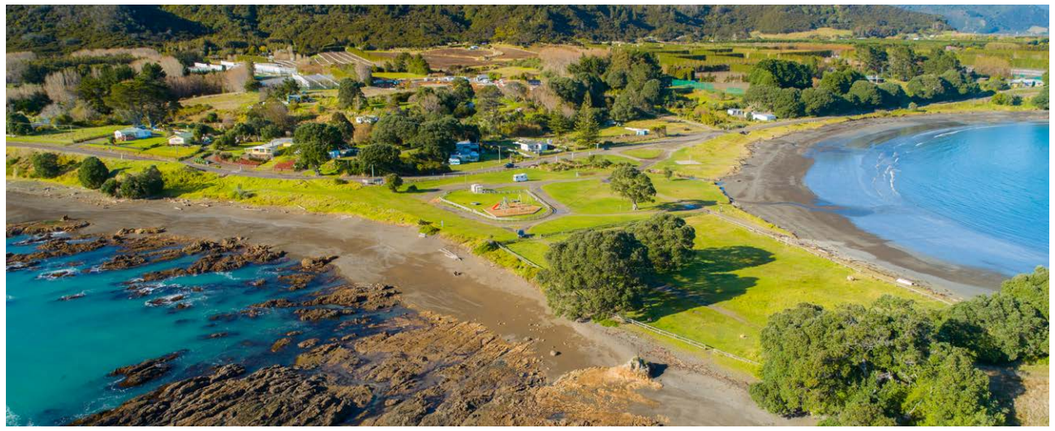
With a coastal line that stretches out to the Pacific Ocean, 160 kilometres of coastline, 13 clean, fast flowing rivers and 11,200 hectares of native bush and scrubland, the Opotiki District homes a community that appreciates and enjoys outdoor activities and is interconnected with their natural environment. The district comprises 25% of the Bay of Plenty region and contains 50% of the Bay of Plenty coastline.

The iwi population for Te Whakatōhea, Ngai Tai ki Torere and Te Whānau a Apanui nationally are 16,095, 2805 and 16,689 respectively. Residents in Ōpōtiki that affiliate to these iwis are 2,709 (17%), 411 (15%), and 1,803 (11%) respectively.

Stemming from the economic inequities present in the Ōpōtiki District are broader social issues such as poverty, housing, and lack of equitable educational opportunities. The unemployment rate for Ōpōtiki District is 7.3% compared with 4.5% for the wider Bay of Plenty region; this is higher than the national average. Labourers make up a large portion of the occupations held by people living in Ōpōtiki District at 27.5% compared with 11.3% for all of New Zealand (Stats NZ, 2018)[8]. The proportion of Māori adults having no qualification was highest in Ōpōtiki and Kawerau (34 & 35% respectively).

The median income for working age people in the Opotiki District was $22,400 in 2018 compared with $31,800 nationally. In 2018 around 44% of working age people had an annual income of $20,000 or less, up from nearly 38% in 2013.

A high proportion of residents (50.1%) own the homes they live in, which is comparable to the national figure. Just over a third of the district's population lives in accommodation they do not own.



Te Kaha, Tairawhiti Gisborne, New Zealand

Proposed Development

The proposed development encompasses the following number of facilities and services:

- **500 kms** — of trail for walkers, cyclists and horses
- **Way finder points** — every 100 metres
- **Signage** — at least every 1km
- **4 huts** — (self-sufficient) every 3 hours of unsheltered walkway, positioned to mini mise impacts on the surrounding environment
- **Bridges** — of trail for walkers, cyclists and horses
- **Fencing and gates** — of trail for walkers, cyclists and horses
- **Toilets**
- **Landscaping** — that enhances the natural environment and contributes to biodiversity outcomes.

The construction of Te Ara Tipuna is expected to occur in stages over 5-7 years and full completion is expected in 2028-2030.

The trail is estimated to take 26 days, for walkers, with the option of an additional 5 days to complete the Hikurangi loop.

The proposed development will begin construction of a section of the ara, from Tokomaru Bay to Ruatoria. This area is deemed the most vulnerable to extreme weather events and Te Ara Tipuna will provide additional emergency access, when Highway 35 and arterial roads are inaccessible.

A 1km long track in Ruatoria is proposed for construction in early July with completion expected by 14 August, 2023. This track will showcase the four different tiers along Te Ara Tipuna from wayfaring to raised boardwalk and serve as a proof of concept, for landowners, communities, and other potential users of the trail. This track will not form part of the consent for the wider track.

Motu Paki, Tairawhiti Gisborne, New Zealand

3. Background

Site Background and History

Ngati Porou

Ngati Porou claim mana whenua from their tipuna Maui, who according to tradition, fished up the North Island. The Ngati Porou rohe extends from Te Toka a Taiau, (rock that once stood in the Turanganui river, in Gisborne) to Potikirua (rock northeast of Potaka). The descendants of Maui embraced and joined with the ancestors of Polynesia, that arrived in seafaring waka, Nukutere, Tereanini, Horouta to form the iwi that we know today. Ngati Porou take their name from their eponymous ancestor, Porou Ariki Te Matatara a Whare Te Tuhi Mareikura o Rauru, abbreviated to Porourangi.

Although Ngati Porou come together as an iwi, whanau and hapu are the day-to-day operators of mana over resources and people. Partly this is the result of the geography, where small independent hapu communities have lived for generations making their own decisions. Historically right through to current times Ngati Porou whanau and hapu coalesce, to address threats and adversity and make decisions as an iwi.

The complementary exercise of mana is demonstrated by the Ngati Porou Treaty of Waitangi Settlement, conducted on behalf of the iwi and the Ngati Porou foreshore and seabed negotiations, where rights and interested were determined by hapu and conferred on Nga Rohe moana o nga hapu o Ngati Porou.

Four principles regarding the mana of hapu:

Toitu te mana Atua:
unbroken mana of hapu to their rohe moana (and whenua)

Toitu te mana whenua me te mana moana:
the right of protection over land and sea

Toitu te mana tangata:
rights of control over their own affairs

Toitu te Tiriti o Waitangi:
partnership between hapu and crown under Te Tiriti

'He wiwi Nati, no Porourangi,
he iwi moke no Waiapu,
no Whangaokena, no Hikurangi,
he nati te wiwi he whanoke',

these lines from the waiata Te Wiwi Nati, written by Henare Waitoa, aptly describes Ngati Porou, an independent, resourceful people who are constantly adapting to the rugged terrain and conditions, in which they live. Ngati Porou have a long history of self-government since the arrival of Pakeha, consistently adapting to use the available systems and tools to maintain their mana Motuhake, through a mix of both self-management (kawanatanga) and self-rule (rangatiratanga).

Pre-European arrival the land where the proposed development will occur had extensive native forests, but was also the site of well-developed horticultural systems that sustained flourishing Māori communities. The arrival of Pakeha saw the clearing of extensive native vegetation, and the introduction of western styles of pastoral and horticultural farming. The region's economy developed to service these industries, including intensive coastal shipping. Ongoing cycles of boom and bust saw the region prosper, and flounder. With the development of the roading infrastructure by the 1960s, the reliance on coastal shipping waned, and a change in land use since the 1980s has seen large tracts of the East Coast planted in production forestry.

However, the land is young, and it is some of the most erosion prone land in the world. Catastrophic impacts from recent adverse weather events lead to a Ministerial Inquiry into Land use, and the subsequent Outrage to Optimism report[9] outlined a number of recommendations for a mosaic of land uses that will allow the land to regenerate, a sustainable economic base to be developed and the people to remain resilient.

Te Whanau a Apanui, Ngai Tai ki Torere and Te Whakatohea

Ngā Pou Mana o Io, the five cornerstones of He Pou Oranga Tangata Whenua - Determinants of Health were conceptualised by the eighteen iwi of Te Moana a Toi (Te Rūnanga Hauora Māori o Te Moana ā Toi, 2007)[10] which includes the Opotiki region towards the East Cape. He Pou Oranga speaks to Maori leading flourishing lives as Māori with optimum spiritual, mental, social, emotional and physical wellbeing:

Mana Atua - Our creation from Io Matua Nui and our connection to the spiritual world influence how we interact with our Atua who are embodied within the natural world.

Mana Tūpuna - Our connection to our ancestors unites us all as tangata whenua through our whakapapa, strengthening our collective spirit and guiding our ultimate direction.

Mana Whenua - Our conception connects us to our tūrangawaewae that affirms our rights to be self-determining over our ancestral lands and waterways.

Mana Moana - Our connectedness to Te Moana a Toi affirms our wayfinding legacies and our unique relationship to Tangaroa, including our responsibilities as kaitiaki.

Mana Tangata - Our unique identity, qualities and attributes as human beings, and as tāne and wāhine, affirm our special place and purpose within whānau, hapū and iwi.

These Pou Oranga, Mana Atua, Mana Tūpuna, Mana Whenua, Mana Moana and Mana Tangata underpin the worldview of Māori across the Eastern Bay of Plenty region, and orient us toward our ancestral teachings, principles and knowledge systems embodied within our māramataka, rongoā, kawa, tikanga, reo and mātauranga. This rohe draws on Ngā Pou Mana o Io as the foundation of our worldview.

Population Growth

Currently, the population of the Tairawhiti Region is 47,517 with 25,134 identifying as Māori (2018 Census)[11]. Ngati Porou comprises approximately 60 % of the maori population in Tairawhiti. Most models for the future population growth of Tairawhiti predict a moderate growth rate. Figure.NZ predicts the regional population to reach 55,000 by 2048. Approximately 5, 000 people are domicile in the area, Makorori to Potaka. There are 48 marae in the Ngati Porou rohe.

The current population of the Opotiki District is 9,300 residents. Ōpōtiki Districts population is expected to increase by 2,656 people (1.3% per annum) (Opotiki District Council, 2023)[12], and 1,045 households by 2031. Each year, more than 150 babies are born in the Eastern Bay of Plenty district, with more than 80% of those babies born Māori, indicating that our iwi Māori population is growing at a rate that will see at least 75% of the residents within this region identify as Māori.

Just under half of the resident population lives in the Opotiki township with the remainder living in smaller outlying communities. The 19 marae in the district are a focal point for local communities, along with a number of strong farming, lifestyle and coastal settlements.

Each year, more than 30,000 domestic and international visitors experience the Opotiki District and environment. Visitor numbers to the district have however declined significantly since 2010 and have only recently stabilised.

The region has been successful in developing a nationally significant cycle trail in Motu Trails. Substantial investment has gone into this trail, and it continues to provide an opportunity to leverage the visitor industry.

TKKM o Kawakawa Mai Tawhiti,
Tairawhiti Gisborne, New Zealand

Infrastructure

Social infrastructure is defined as “development at a household or community scale intended for the delivery of services that has a direct or indirect impact on quality of life.” (Overview of Integrated Environmental Management (2004)[13]

Te Kura o Torere

The existing social infrastructure within the proposed development area consists of

- **22 communities**
- **64 Marae**
- **Sports Clubs**
- **Accommodation**
- **Food and Beverage providers.**

Currently the visitor accommodation summary provided by Trust Tairawhiti as Regional Tourism Organization (RTO) for Tairawhiti and Opotiki has 559 accommodation providers and 2350 rooms available. Within this there are 75 commercial accommodation providers with 1263-unit stays. These are spread across the commercial accommodation spectrum from campgrounds to hotels.

Trust Tairawhiti as RTO, are currently developing a dashboard that will provide information around the region’s food and beverage providers.

- **9 Fire and Emergency services: Turanga-nui-a-Kiwa, Waihau Bay, Te Araroa, Tikitiki, Ruatoria, Te Puia, Tokomaru Bay, Tolaga Bay, Waihau Bay**
- **Land Search and Rescue: Gisborne**

Tokomaru Bay café, Highway 35, Tairawhiti Gisborne, New Zealand.

Tairawhiti

- **Education facilities including 5 Kura Kaupapa, 2 Bi-lingual, 9 Primary and 4 Composite schools.**
- **2 Hospitals (Gisborne and Te Puia) and 5 Health Clinics**
- **8 Petrol stations**
- **Community Halls**
- **Places of worship**
- **3 Historic wharves Tolaga Bay, Tokomaru Bay and Hicks Bay.**

St Mary’s Church, Tikitiki, Tairawhiti Gisborne, New Zealand

Throughout the consultation that informed the draft Tairawhiti Destination Management Plan, infrastructure was identified as a challenge, including the poor quality and ongoing vulnerability of state highway 35. Indeed, many of the region’s roads are adversely affected during major weather events, and communities within the region are often faced with multiple clean ups and impassable roads creating isolated communities. The draft Tairawhiti Destination Management Plan also notes:

- Gaps in the network of waste management options for campervan and motorhome users
- An overall lack of ablutions (and where there are facilities, there might not be enough to meet future needs).
- Very few public transport options in the region – and no tourism transport providers around the coast.
- A lack of accommodation fit for purpose and accessible for visitors, and a lack of EV charging stations for visitors and local alike.

Affordable and reliable telecommunications hold high importance in the everyday lives of the people in Tairawhiti and Eastern Bay of Plenty. Living in remote rural locations, while having some great advantages also has some great disadvantages, principal among these being the high cost of travel to get in and out of the region. The promise of modern telecommunications systems is that the tyranny of distance is dissolved, and we can all fully participate in the so-called global village.

Telecommunications is, both metaphorically and literally, our lifeline. During Cyclone Gabrielle in February 2023, the telecommunications network across Te Tairawhiti was lost to the entire region for almost 14 days, leaving all residents throughout the region with no means of communication.

All connectivity was a major concern during cyclones Hale and Cyclone Gabrielle with landline and mobile phone coverage cut off, due to power failures cutting electricity to cell phone towers, and broken fibre links.

Satellite communications is a good back up or option in case of telecom and cellular communications outages, as was the case in Tairawhiti in the immediate aftermath of Cyclone Gabrielle. Satellite communication is not 100% perfect because its communications will be affected by the weather. In particular, it is heavily affected by the clouds and heavy rain will interrupt and distort the satellite signals. Besides the weather, the satellite signals can be blocked – by objects or obstacles such as buildings, trees or trucks – more easily compared to cellular communications.

Eastern Bay of Plenty

Within the Eastern Bay of Plenty there are a total of 19 Marae and 18 hapū. Our Marae are the strongholds of our whānau and our iwi, they are the places where we gather to celebrate and to mourn, and to wānanga and make collective decisions that support the vitality of our people. As central institutions of our whānau, hapū and iwi, they must be invested in to provide a place of refuge in a wide range of situations.

Many marae have aspirations to be the central shelter for their people in the event of an emergency, and it is considered that the majority of Marae are well-placed for this to occur. Some hapū have already organised themselves and are building their capacity to support them to mobilise and centralise in emergency situations. Waioeka Marae is actively involved in Project Kāinga, a research project that aims to support rural marae to respond to the challenges of climate change by building their resilience. Other hapū such as Te Whānau a Maru have taken over their local shearers quarters to prepare for emergency situations, whilst the next hapū along, Te Whānau a Pararaki are connected to the Waihau Bay Fire Station.

Across Tairawhiti and the Eastern Bay of Plenty many of our Marae struggle to have their basic needs met. Being prepared to best meet the needs of their people and wider communities will include greater investment in:

- the quality of drinking water
- the supply and storage of water on site to accommodate intermittent utilisation, as wells fire-protection due to rurality
- the establishment of off-grid power solutions
- ongoing repairs and maintenance to existing buildings
- accessibility to locally grown produce
- the upgrading of equipment and appliances
- the reliability of internet satellite connectivity to support virtual meetings and communications
- capacity and capability building to manage civil defence emergencies.

Tōrere, State Highway 35, Tairawhiti Gisborne, New Zealand

4. Framework

Social Impact Assessment Framework

The assessment framework is used to analyse and manage the potential social consequences of development. The below framework is based on Establishing Standards for Social Infrastructure (2005)[14]. It is used to examine the local community in the context of the proposed development.

Information reviewed

The following information has been used to inform and prepare the SIA:

- **Tairawhiti Destination Management plan**[15]
  While this is in Draft state, throughout 2021 & 2022 Trust Tairawhiti as the Regional Tourism Office lead extensive engagement throughout the region to gather insights into the regional aspirations for tourism. The primary aspiration was to welcome whanau home.
- **Opotiki Destination Management Plan**
- **Outrage to Optimism Report**
  Released in response to the Ministerial Inquiry into Land use in Tairawhiti. This provides a series of recommendations focussed on land use changes that will allow Tairawhiti to remain resilient in the face of the impacts of climate change.
- **2021 Evaluation of Nga Haerenga Great Rides of New Zealand**[16]
- **Whakamaua Māori Health Action Plan**[17]
- **Bay of Plenty Regional Council Regional Natural Resources Plan (RNRP)**[18]
- **Bay of Plenty Regional Council Regional Land Transport Plan 2021 – 2031**[19]
- **Ōpōtiki District Council - Landscapes and Habitats** [20]
- **Rau Tipu Rau Ora Covid-19 Pandemic Response and Recovery Plan**[21]
- **Eastern Bay of Plenty Cycle Strategy**[22]
- **Ōpōtiki District Council Waste Management and Minimisation Plan**[23]
- **Health and Safety at Work Act 2015**[24]

A full list of references is contained within Section 8. It is noted that at the time of writing, several relevant documents are under review and/or being drafted for consultation:

- Tairawhiti Walking and Cycling Strategy (GDC)
- Tairawhiti Regional Public Transport Plan (GDC)
- Tairawhiti Regional Land Transport Plan (GDC)
- Tairawhiti Future Development Strategy (GDC)
- Tairawhiti Economic Action Plan (Trust Tairawhiti)

Policy Framework

NZ Tourism Industry Transformation Plan

The Tourism Industry Transformation Plan (ITP)[25] is a partnership with the tourism industry, iwi/ Māori, unions, workers and government to transform tourism in Aotearoa to a more regenerative model. The overarching objective of the Tourism ITP is to contribute to the building of a regenerative tourism system. A regenerative tourism system is one that leaves people, communities, and the environment better than before, and can be understood as an extension of sustainability. To date, a Better Work Action Plan has been prepared with the following six Tirohanga Hou:

1. Recognising quality employers and improving employment standards and practices
2. Fit-for-purpose education and training
3. Embrace the flux, enable the flex
4. Improving cultural competency and ensuring authentic storytelling
5. Lifting technology uptake and innovation to support Better Work
6. Showcasing the great – pathways and people in tourism.

A draft Environment Action Plan has also been prepared for consultation (ending 18 July 2023). This document contains 6 proposed Tirohanga Hou:

1. Tourism journeys are decarbonised
2. Tourism champions biodiversity
3. Visitor management is optimised for te taiao
4. Tourism businesses are incentivised and enabled for sustainability and regeneration
5. The tourism system and its levers are optimised and resourced to support regeneration.

Church at Raukokore

Tairawhiti Destination Management Plan (Draft)

The intention of the Tairawhiti Destination Management Plan (Dec 2022) is to place the natural environment and the communities of Tairawhiti at the heart of visitor planning for the region. Through community engagement that occurred over 2021 and 2022, the destination management planning process has sought to capture and reflect the future aspirations of the people who live, work, play and visit Tairawhiti. The draft vision is to:

> "Grow the value of the visitor economy for the people and place of Tairawhiti to support community social, cultural, environmental, and economic wellbeing, that enables us to live the lives we value."

The four guiding principles of the draft Tairawhiti Destination Management Plan are:

- Value our heritage and taonga
- Live lives we value
- Empowered hosts, empowering visitors
- Quality over quality
- People to people interactions
- Real outcomes for communities

The draft Destination Management Plan is expected to be finalised later in 2023.

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Opotiki Destination Management Plan (Draft)

The Opotiki Destination Management Plan is intended to accurately reflect the community aspirations, future priorities and the opportunities that afford the district. The Destination Management Plan takes the perspectives of iwi, stakeholders, industry and broader communities into consideration to inform visitor planning for the region.

When these aspirations were distilled, there were strong commonalities shared between those who were consulted. To articulate these aspirations in a more cohesive way, the Destination Management plan outlines them under the headings of the four community wellbeing pillars of the Living Standards Framework:

Social Wellbeing - Uplift Ōpōtiki and the people within it, to be proud to share who we are, where we come from and our special way of living.

Cultural Wellbeing - Reconnect to our (shared) history and culture so that we may celebrate and learn from this ourselves and share this proudly with visitors as together we move towards a positive future.

Environmental Wellbeing - Respect, celebrate and share our natural connection and interdependence with the land and sea.

Economic Wellbeing - Have belief in the value we provide and utilise our unique people, places, and stories to bring prosperity to our community.
The aspirations are then expanded on to outline what that means for the destination, and the opportunities and challenges that might exist on the journey to achieving them. The Draft Opotiki Destination Management Plan is expected to be finalised later in 2023.

Housing

In June 2022, the Tairawhiti Regional Housing Strategy (2022)[26] was released by Manaaki Tairawhiti, on behalf of Rau Tipu Rau Ora. The strategy, highlighted an immediate shortage of at least 400 houses across the Tairawhiti housing spectrum. With population growth and latent demand, this is likely to increase to approximately 1,280 by 2024 and rising to 2,570 more homes in 2030 and 5,360 homes by 2050.

The 2022 Tairawhiti Regional Housing Strategy sets out a housing acceleration programme that will support the building and relocation of houses that meets the needs and aspirations of whanau, seeking affordable and sustainable housing that enables them to live well.

Township Development Plans (Gisborne District Council)

The development and implementation of township plans[27] support the health of our people in our smaller communities. Through improved local infrastructure, environment and outdoor spaces, township plans provide the opportunity for community-led decision-making, and the realisation of our community's aspirations. We also recognise their existence as valuable to the continuation of communities connected to traditional rohe.

For this SIA, our team have reviewed the following township development plans relevant to the communities that will be affected by Te Ara Tipuna:

- Ruatoria Township Plan
- Te Araroa Township Plan
- Tokomaru Bay Township Plan
- Tolaga Bay Township Plan
- Tikitiki and Rangitukia Township Plan

Te Huarahi Whakamua mo te rohe o Ōpōtiki - ŌDC Long Term Plan 2021 - 2031

The Ōpōtiki District Council's strategic direction[28] has been relatively consistent over the last five Long Term Plans (LTPs). The Ōpōtiki District Council and the community have been on a journey for some time now in pursuit of its shared vision of 'Strong Community Strong Future'. Previous LTP's were underpinned by principles of consolidation and prudent financial management, affordability and getting prepared for future growth opportunities. The outcome of these principles has been:

- Identification and improvements to key infrastructure issues so that community is in a good position to cater for future growth opportunities.
- Making best use of shared services, partnerships and external funding opportunities in pursuit of the affordability principle whilst at the same time investing in assets that promote community wellbeing and prepare the community for future growth.
- Working closely with key stakeholders and partners in the developing Aquaculture Industry to help them realise their vision, which is in alignment and complementary to Council's own vision for the district.
- Maintaining a sound financial position so Council is well placed to invest (in partnership with other stakeholders) in the development of the Opotiki Harbour to ensure that the Opotiki District reaps the benefits of a fully developed aquaculture industry.
- Lifting the capability of staff and systems to be ready for growth and increased demand for council services.

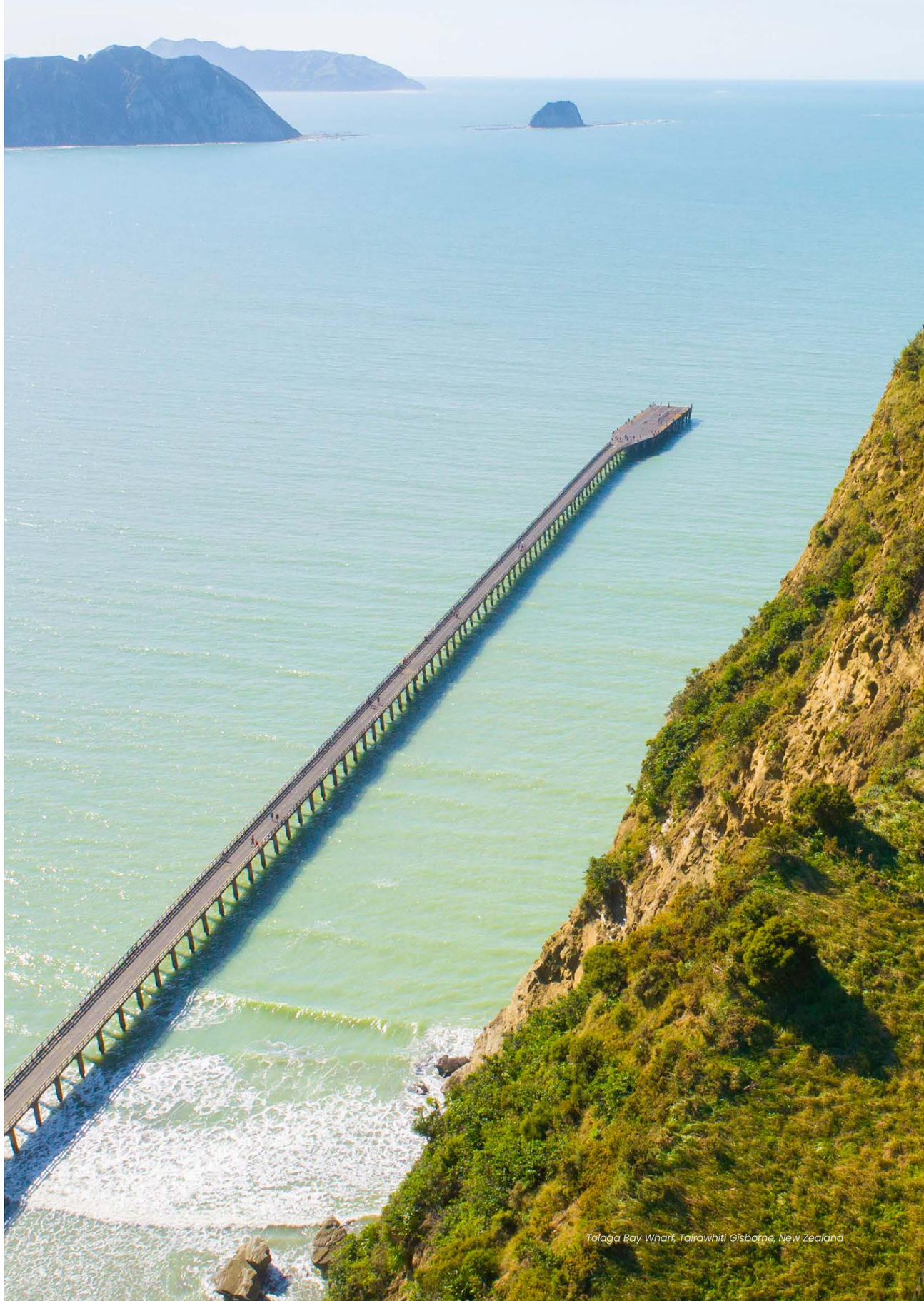
Whakamaua Māori Health Action Plan (2020 - 2025)

The extent of deprivation across Te Tairawhiti and Ōpōtiki [30] has been well-documented, with both regions sitting at the top of the highest rates of deprivation across Aotearoa. The regions also have the highest population of Māori, with the worst health outcomes and statistics relating to Māori and tamariki.

The Whakamaua Māori Health Action Plan[29] provides a roadmap of tangible actions across the health and disability sector that contribute to achieving Pae Ora for Māori. The high-level outcomes of the Whakamaua are:

- Iwi, hapū, whānau and Māori communities can exercise their authority to improve their health and wellbeing.
- The health and disability system is fair and sustainable and delivers more equitable outcomes for Māori
- The health and disability system addresses racism and discrimination in all its forms.
- The inclusion and protection of mātauranga Māori throughout the health and disability system.

Te Ara Tipuna strongly aligns with the Pae Ora Act 2022[30], [the Toitu Tairawhiti Localities Plan, Toi Rawhiti Localities Plan and He Korowai Oranga, the national Māori Health Strategy that envisions 'Pae Ora – healthy Māori futures', and is inclusive of the three key interconnected elements: Mauri Ora (flourishing tangata), Whānau Ora (flourishing whānau), and Wai Ora (flourishing taiao)



Tolaga Bay Wharf, Tairawhiti Gisborne, New Zealand

5. Analysis

Demand for a Walking, Cycling and Horse trekking Trail

Whānau Voice
Ten engagement hui have taken place between the months of April and July 2023 to not only share information and consult with community around the Te Ara project, but to also allow for the emergence of feedback from community, landowners, stakeholders and whānau.

The engagement hui were led and facilitated by the Te Ara Tipuna project management team and supported by Rau Tipu Rau Ora and Healthy Families East Cape. The engagement hui were a valuable opportunity for us to hear first-hand from landowners, hapū and community members about any potential risks, benefits and recommendations that they identified and use this feedback to inform this report.

Six overarching themes emerged from the engagement hui in relation to the social impact of the project.

Social impact themes

1. Tikanga

The key theme of tikanga and cultural integrity was heard widely throughout the region at each engagement hui. Whānau and landowners were vocal around ensuring the cultural integrity of whānau and hapū. There was also kōrero and questions around what plans were in place to protect local tikanga practices relevant to each hapu and iwi.

Key quotes from community:

Cultural Integrity is the most important thing to us.

Who will be responsible for the kōrero that's shared in this kaupapa?

Every hapū, marae, whānau have their own kōrero?

What does practical kaitiakitanga look like?

What about our wāhi tapu, how do we take better care of wāhi tapu.

From our experience, pakeha don't respect our tikanga and break it.

Each hapū has their own strategy to reconnect with their hapu and whenua, there needs to more consultation with hapū.

Pākeha aren't going to respect our tikanga.

You're going to struggle with Ōpōtiki District Council if tangata whenua aren't involved, it's written in their policies.

You're going to struggle with Ōpōtiki District Council if Raukūmarama Pae Maunga isn't involved.

Risk of outsiders breaking and disrespecting local tikanga.

There's an opportunity to share our tikanga with others through Te Ara Tipuna.

2. Waste Management

Concerns regarding waste management and waste minimization was a consistent theme at the engagement hui. Surging amounts of waste affect our country, w ith a reported 30% of waste in the Tairawhiti region stemming from food wastage. Landowners and whānau shared that they are worried about the waste impact from manuhiri (visitors) in our region because of Te Ara Tipuna.

Key quotes from community:

How are we going to ensure that waste is managed.

to the best ability along Te Ara, from start to finish, so that our rohe is not damaged by manuhiri and their rubbish.

We are worried that the extra people in our region will pollute our land with their rubbish?

What will the rubbish bins look like and how will they be placed along Te Ara? Who is going to manage this? We need to make sure that our people and whānau don't bear the brunt of extra rubbish.

Due to people leaving trash by the side of the road, in our forests, and alongside our rivers, State Highway 35 already has a significant waste problem. This track may make the situation even worse.

Toilets, where else are people going to go since there aren't enough toilets.

Ka hīkoi, ka tikotiko haere ki runga i tō tātau whenua.

Consultation Hui, Te Kaha Marae, June 2023

3. Kāpata Kai

It was evident through engagement hui and conversations with whanau and landowners that the placement of the ara should prioritise the protection and growth of traditional kai sources, and support opportunities for local communities to access kāpata kai across te ara.

Key quotes from community:

> *The public will think they have unrestricted access to our beaches, our moana, our kāpata Kai.*
>
> *The public will think they have unrestricted access to our ngahere for hunting.*
>
> *This track might pose issues for landowners who don't permit hunting on their property because some areas allow it while others don't.*
>
> *This kaupapa could make things worse for the ahi kā, the kaitiaki of all our kāpata kai, who are already constantly working to prevent people from entering our kāpata kai, and pillaging our kāpata kai.*
>
> *This kaupapa could make things worse for the ahi kā, the kaitiaki of all our kāpata kai, who are already constantly preventing people from entering our kāpata kai, and pillaging our kāpata kai.*

4. Ownership of Narratives

The hapu and whānau along te ara, need to provide the content and decide what narratives are shared about their section of te ara. The, preference is to use their own people to narrate the stories in their own words, to ensure the authenticity and integrity of the narratives shared throughout te ara. The consensus from attendees at the engagement hui was that landowners and hapu need have editorial control over the narratives produced for their part of te ara.

Key quotes from community:

> *Who will be responsible for the kōrero that's shared in this kaupapa?*
>
> *Every hapū, marae, whānau have their own kōrero?*
>
> *Each hapū has their own mana Motuhake.*
>
> *We don't want to be swallowed up in the Iwi; we have our own mana.*

5. Health and Safety

Health and safety measures for manuhiri, landowners and whānau is of the upmost importance. Queries were raised about proposed measures to protect and keep hau kainga safe, and the need for health and safety guidelines to provide advice on how to manage the health and safety risks along te ara, including guidance on the people and times people access te ara, on their whenua.

Key quotes from community:

> *We had issues in Hawai during Cyclone Gabriel when whānau wanted to keep people out for safety reasons, but surfers from Whakatane and Tauranga still came in, Pakeha don't respect our tikanga.*
>
> *Risk of outsiders walking off the Te Ara Tīpuna and onto private land.*
>
> *Each hapū, whānau and landowner should get an opportunity to decide who and when someone comes through their whenua.*
>
> *Many of us used to walk along state highway 35, but we no longer do so because of the danger posed by road traffic.*

6. Community Benefit

Landowners were clear on the need to prioritise opportunities for locals in terms of job opportunities, and utilising hapu networks, skills and expertise in the construction and operations of te ara.

Key quotes from community:

> *Where is the opportunity to hire our own to be a part of this kaupapa from the beginning?*
>
> *This is a good opportunity to create more local social enterprises, restore connectivity and put the onus back on us to lead that.*
>
> *A good opportunity for more tourism and for hapu to play a lead role.*
>
> *A good opportunity to restore the connection between people and te taiao.*
>
> *Responses and proposed mitigations of the risks identified are covered in the following section and the proposed Social Impact Assessment (SIA) Worksheet attached as Appendix B.*

East Cape Lighthouse, Tairawhiti Gisborne, New Zealand

6. Social Impact Assessment

The assessment of potential social impacts will be classified as either positive or negative, dependent on whether the expected social consequences derived from the development enhance or diminish whanau, hapu, iwi, community values and social infrastructure. This assessment considers social impacts at the local scale only.

The SIA also takes into account the impacts that will occur during Construction and Operation of Te Ara Tipuna.

1. Way of Life

Definition:

Impacts on people's daily routines caused by construction activities and/or operational arrangements. Impacts on people's commuting/ travelling times, their experience of travel, and their ability to move around freely. Impacts on people's experience of privacy, peace, and quiet and enjoyment, especially if affected by increased noise. Impacts on people's general experience of life in their community.

Lifestyle - Access to traditional sources of kapata kai

A key objective of Te Ara Tipuna, is to encourage and support the 'iwi kainga, locals, to continue to live their lives in ways that are meaningful to them', the authenticity of the experience and integrity of the interactions between the iwi kainga and manuhiri is critical to the success of te ara.

Te Ara Tipuna provides major opportunities to support existing and new growers to achieve greater produce diversity and extended production seasons in Tairawhiti and Opotiki. Economically, food is an integral part of a balanced production and exchange system.

Growing, processing, and providing food can generate sustainable employment. Tairawhiti has an established and successful agriculture sector. However, there remain other economic areas that need focussed attention in the community. Commonly across Aotearoa, inequities in access to good food are associated with basic problems in the local communities. Setting up or supporting exemplary small-to-medium food enterprises that also prioritise traditional sources of kai, including maara kai and kapata kai is one way to grow access to kai across Te Ara.

Construction

During the construction period of te ara, there may be some impacts on whanau, hapu and iwi that gather kai from their maara and, or kapata kai if access to these food sources if access is impeded and traditional practices disrupted. However, through consultation and management of the construction activity the potential impacts can be managed to ensure any potential impact is minimised.

Operational

Through consultation with affected whanau, hapu, iwi, the placement of the ara can support access to traditional kai sources, leading to positive impacts. Well considered placement can ensure access by whanau members is better enabled and not restricted. Consideration should be given to the tier of trail installed in the areas that whanau gather and collect kai that meets their customary practices. However, there are concerns that improved access may also provide other trail users with access to maara and kapata kai resulting in the depletion of traditional food stocks. These risks can be managed by the guidance and expectations expressed in a te Ara Tipuna Passport, trail guide books and appropriate signage.

There is ample opportunity to support business innovation, social enterprise and local job creation in Tairawhiti and Opotiki's kai systems and explore opportunities to support the emergence of essential food providers in retail environments across the rural landscape that the Ara traverses.

Maara Kai, SH35

Housing

The Tairawhiti Regional Housing Strategy (2022) was released by Rau Tipu Rau Ora in June 2022. The strategy, sets out a housing acceleration programme that will support the building and relocation of houses to address an immediate shortage of at least 400 houses across the Tairawhiti housing spectrum. With population growth and latent demand, the number of houses required by 2024 is likely to grow to at least 1,280 more houses and rising to 2,570 more homes in 2030.

The users of te ara, will require accommodation, which can be accommodated by the existing offerings including, 70 marae, a range of B&B options, farm-stay accommodation, motels, lodges and camping or glamping options.

Overall, the lifestyle impacts of the [project] are considered to be positive.

2. Community and Accessibility

Definition:

Composition - impacts on demographic characteristics and community structure. Can be changed by in-migration and out-migration over time, including the presence of newcomers and loss of longer-term residents or sections of the community. Also, inflow/outflow of temporary residents, e.g., during construction.

Travel

State Highway 35 has a vital role to play in the wellbeing and prosperity of the people, that live and work on the Coast. The long-term poor state, desultory approach to repairs and maintenance and chronic underinvestment in Highway 35 and arterial roads across Te Tairawhiti and the Eastern Bay of Plenty has impacted heavily on the wellbeing and vitality of the Coast.

Recent severe weather events have exacerbated the situation and the state of Highway 35 and the roading network is dire, bordering on negligent, with communities forced into states of isolation for prolonged periods, impacting access to food, schools, work and essential services.

The proposed development will provide infrastructure for an alternative pedestrian, cyclist and horse trekker access route, with provision for quad bike in some sections of the track during emergencies, thereby providing greater resiliency for whanau, hapu, iwi and communities. There is minimal public transport provision around the East Coast. Increases in visitor numbers to Te Tairawhiti will significantly enhance the viability of Council or community led public transport initiatives, as well as opportunities for low carbon electric mobility options, i.e., electric vehicles and Ebikes is considered more viable. Low carbon options will benefit, both visitors to the region and locals.

Overall, the community impacts of the [project] are considered to be positive.

Tokomaru Bay Roads Sign, Tairawhiti Gisborne, New Zealand

3. Culture

Considers indigenous and non-indigenous cultures, including shared belief systems, customs and values. Incorporates stories and connections to whenua and the built environment.

Ownership of Narratives

Korero tuku iho/whanau, hapu, iwi narratives- Landowners, whanau hapu, and where appropriate iwi will have control of the narratives, descriptions and information that is shared with walkers, cyclists and trekkers over their part of the trail.

The proposed Aru-whenua, passport, and framing of the Oati , oath, will outline the Kawa and Tikanga for each area thereby contributing to the creation of resources for all those involved.

The Aru-whenua and Oati will also provide landowners, whanau, and hapu with the opportunity to design and develop the collateral (narratives, story boards) for signage and apps, for their stretch of Te Ara Tipuna, allowing them the opportunity to tell their stories in their way. This will also contribute to the corpus of whanau, hapu, and Iwi cultural resources in the future.[31]

Te Waha o Rerekohu (Pohutukawa in Te Araroa), Tairawhiti Gisborne, New Zealand

Construction

One common theme across engagements was the importance of the ownership of narratives remaining with whanau, hapu or land block groups along each section of the track. As repositories of tribal knowledge, whanau and hapu emphasised the need to be self-determining by retaining control over which narratives are shared publicly and those that will remain private. Any development of supporting Te Ara Tipuna collateral (such as apps) should be built from the ground up.

Mana Whenua – will have the ability to practically apply rangatiratanga and mana over the areas under their direct control. Te Ara Tipuna will provide opportunities for mana whenua, to practically exhibit the roles and responsibilities that come with the exercising of rangatiratanga.

Access – landowners, whanau, hapu, and iwi will exercise rangatiratanga by determining when and how access to areas will be given and parts within the defined area that can be accessed.

Cultural knowledge – landowners, whanau, hapu, and Iwi will have greater access to sites of significance, to the matauranga held in, on and around these sites, to the ecology and eco-systems that make up these sites. The cultural knowledge that will be generated and shared through this project will help to rejuvenate the people and place.

Operational

The proposed Aru-whenua, passport, and framing of the Oati , oath, will outline the Kawa and Tikanga for each area thereby contributing to the creation of resources for all those involved.

The Aru-whenua and Oati will also provide landowners, whanau, and hapu with the opportunity to design and develop the collateral (narratives, story boards) for signage and apps, for their stretch of Te Ara Tipuna, allowing them the opportunity to tell their stories in their way. This will also contribute to the corpus of whanau, hapu, and Iwi cultural resources in the future.

Education

There will be a multitude of positive benefits from te Ara for the acquisition, enhancement and sharing of, matauranga a iwi within whanau, hapu and iwi and in the educational outcomes of tauira. Students in local kura and schools will benefit from the introduction of Te Takanga o Te Wa and Aotearoa New Zealand Histories will be part of all kura and schools marau a kura. Local schools and kura will be able to integrate te Ara into their curriculum, to access the cultural collateral developed for te Ara, and access and use te Ara for recreational and environmental purposes.

Ngata Memorial College January 3 2023

Overall, the cultural impacts of the [project] are considered to be positive. appreciating that work needs to be undertaken with impacted landowners and hapu to reassure them that identified risks will be mitigated and managed.

4. He Tangata

Definition:

WHAKAPAPA is the most important thing - the people to whom we are connected - and the understanding that we are people through other people, and all that they represent in terms of knowledge, experience and place.

In its entirety, Te Ara Tipuna is 500 kms traversing the rohe of Ngati Porou, Te Whanau-a-Apanui, Ngai Tai ki Torere and Te Whakatohea engaging with some of the most beautiful, rugged, isolated land and waterways of Aotearoa New Zealand; experiencing cultural icons of marae and mountains, and the unique character of its local people and communities. The opportunities for relationships and connections under this project have no bounds. Further to this, the relationships and connections created at a systems level during the preparation and through undertaking the project, are multi-level and cross-sector.

Te Ara Tipuna will reinforce connection and contribution through whakapapa, and activity between and amongst communities.

Overall, the he tangata impacts of the [project] are considered to be positive.

5. Livelihoods

Definition:

People's capacity to sustain themselves.

Te Ara Tipuna represents investment in sustainable base infrastructure in Te Tairawhiti and the Eastern Bay of Plenty, as a network of ara/ accessways around the East Coast, for local communities and visitors to hike, bike, and trek; and, to provide the connection and catalyst for businesses and employment offering services, provisions and experiences.

Te Tairawhiti and the Eastern Bay of Plenty have for too long exhibited the symptoms of continued low economic investment, social fracturing and cultural challenge. A litany of statistics describes deprivation, desperation, dependence, poor lived experiences, and poor-quality outcomes. Notwithstanding, the hardy and hearty who make the Coast home aspire to a better standard of living, to opportunities for their whanau, and a better future for themselves and their communities. Te Ara Tipuna offers these possibilities.

Te Ara Tipuna will be the wellspring of local level enterprise and economic development, of environmental protection, development and sustainability, of work, wealth and wellbeing, of family, whanau and community.

Te Ara Tipuna will generate more possibilities of uri (descendants) returning to live and work at home, and contribute their skills and capabilities to growth and development of the Coast.

Workforce Development

Construction

The construction of the proposed development is anticipated to take place over 5 years and will have impacts on the local labour force.

- Social procurement, the proposed project has a target of employing 25% of their unskilled labour from currently unemployed labour. This intervention will enable locals to upskill, re-enter the workforce and diminish reliance on central government support.
- The project is also committed to supporting local contractors and creating job opportunities for unskilled and skilled labour which will be needed to deliver the project.
- There is scope to provide alignment of jobs with local skills, ensure training provision engenders the development of skills that lead to long term sustainable employment.

Operational

After the staged construction of the proposed development there exists potential for growth opportunities across a number of sectors. Including but not limited to:

- Maintenance
- Tourism, particularly those that relate to the culture and history of the area
- Hospitality,
- Enhancing – existing landholding and bolstering vitality of rural communities.

Overall, the livelihood impacts of the [project] are considered to be positive.

6. Health and Wellbeing

Definition:

A holistic view of hauora (physical and mental wellbeing) with focus on the wellbeing of individuals within communities, and consideration for those who may be vulnerable to substantial change.

Health is not and should not be confined to the treatment of illness but include philosophical concepts, structures and cultural practices that reinforce health and wellbeing. Te Ara Tipuna will act as a stimulus for whanau to engage in recreation pursuits that will not only improve their physical, mental and emotional health but strengthen their self-determination, identity and connection to the environment.

Safety considerations

There are unintended consequences that will arise with the increased accessibility to those experiencing the Ara, both during the construction of the track and also during the operational phase. These consequences range from the increased health and safety risks that could occur to both locals, landowners and manuhiri who will have increased access to areas of te taiao that have not necessarily had prior access to the degree that te Ara provides.

Te Ara Tipuna aligns well with current regional and wider statutory plans and regulations that prioritise the health and safety of individuals.

Construction

The Health and Safety at Work Act 2015 provides a balanced framework to secure the health and safety of individuals, employees and workplaces by:

- Protecting employees/ subcontractors and other persons against harm to their health, safety, and welfare by eliminating and minimising risks arising from work;
- Providing for fair and effective workplace representation, consultation, cooperation, and resolution of issues in relation to work health and safety;
- Assisting Persons Conducting a Business or Undertaking (PCBUs) and employees/subcontractors to achieve a healthier and safer working environment;
- Promoting the provision of advice, information, education, and training in relation to work health and safety;
- Securing compliance with the HSWA through effective and appropriate compliance and enforcement measures;
- Ensuring appropriate scrutiny and review of actions taken by persons performing functions or exercising powers under the HSWA;
- Providing a framework for continuous improvement and progressively higher standards of work health and safety.

During engagements, community have expressed concerns over the management of health and safety during the construction of the trail. For the purpose of this SIA, it is within its scope to articulate that Te Ara Tipuna holds in high regard the assurance that persons should be given the highest level of protection against harm to their health, safety and social welfare from hazards and risks arising from construction work as is reasonably practicable. Te Ara will need to ensure, as far as reasonably practicable:

- The provision and maintenance of a work environment that is without risks to health and safety;
- The provision and maintenance of safe plant and structures;
- The provision and maintenance of safe systems of work;
- The safe use, handling, and storage of plant, substances, and structures;
- The provision of adequate facilities for the welfare at work of employees/subcontractors in carrying outwork, including ensuring access to those facilities;
- The provision of any information, training, instruction, or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the undertaking.

Operational

During engagements community have expressed concerns over the management of health and safety during the operation of the trail.

One initiative undertaken by Ngati Porou as part of its Recovery, Reset and Reshape Plan is to work with Ngati Porou East Coast civil emergency teams to establish, equip and resource a network of 11 Ngati Porou East Coast Emergency Management hubs and work with whanau and households through Tiaki Tangata, Tiaki Kainga to prepare whanau and household emergency preparedness plans.

Ngati Porou has also established a communications network, utilising existing telecommunications infrastructure and purchasing new telecommunications equipment to ensure an emergency communications network is operable during states of emergency. Civil emergency training and telecommunications training has been organised to grow the capacity and capability of the emergency management hub leads and volunteers. Starlinks have been sourced for Ngati Porou communities and organisations, including hospital, health clinics and radio. It is understood that work is currently underway to secure Starlinks for Te Whanau a Apanui and other parts of the wider Tairawhiti region.

State Highway 35 has proven to be vulnerable to adverse weather events, and Te Ara Tipuna provides an alternative route during an emergency.

Housing

The Tairawhiti Regional Housing Strategy (2022) was released by Rau Tipu Rau Ora in June 2022. The strategy, sets out a housing acceleration programme that will support the building and relocation of houses to address an immediate shortage of at least 400 houses across the Tairawhiti housing spectrum. With population growth and latent demand, the number of houses required by 2024 is likely to grow to at least 1,280 more houses and rising to 2,570 more homes in 2030.

The users of te Ara, will require accommodation, which can be accommodated by the existing offerings including, 70 marae, a range of B&B options, farm-stay accommodation, motels, lodges and camping or glamping options.

Health & wellbeing – Overall Health

In general, wellbeing includes everything that makes a good life, not only for individuals, but also for their whānau and families, their neighbourhoods and communities, and for future generations. This includes living in a clean and healthy environment, having basic needs met, being physically safe and secure, experiencing connection with others and a sense of belonging, being able to participate and contribute, being able to express yourself and your identity, experiencing yourself as valued and valuable, and having opportunities to prosper and live to your full potential.

Te Ara creates space for "mā te taiao, kia whakapakari tou oranga," - building connections with nature and the land to enhance our mental health and wellbeing.
The health and wellbeing benefits, alongside the social benefits, of understanding "ko wai au?" (Who am I?) and where we fit in society is essential for our wellbeing and builds our resiliency. Te Ara Tipuna aligns well with prioritising the health and wellbeing benefits of our people. The objectives of Te Ara strongly align with the hauora priorities, and contribute to the wellbeing outcomes identified in the Toi Rawhiti and Toitu Tairawhiti, Locality Plans.

Construction

Whilst acknowledging that during construction there may be some effects on all users of the environment, connecting to the land and nature has been shown to improve overall health and wellbeing. During construction, te Ara will provide locals with the opportunity to be prioritised as part of the construction.

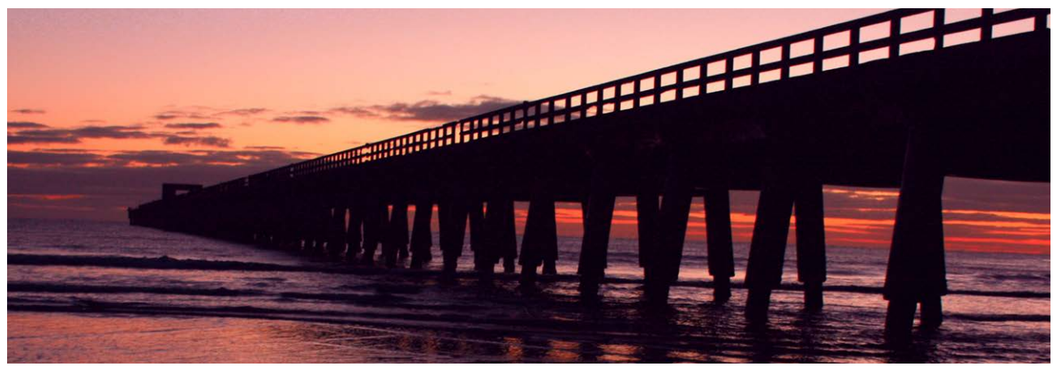
Operational

During the first Covid lockdown across our country in 2020, Te Whānau a Apanui demonstrated their ability to enable hapū and whānau to care for their own through the creation of their very own online shopping scheme Apanui World. The nearest supermarket to Te Whānau a Apanui rohe is 40 minutes away in Ōpōtiki. Creating another option like this enhanced the safety measures that are already in place for this rohe.

Whakamaua: Maori Health Action Plan identifies that current health outcomes for Māori as not 'only unfair and unjust but also avoidable'. The proposed development will deliver a transformative system shift that will better enable hapū and whānau to thrive as Māori, and create healthy and sustainable environments and communities in which to live and raise children.

The 22 communities that the Ara passes through will gain access to infrastructure that encourages them to be active and therefore improve overall health and wellbeing. The proposed development will contribute to a rise in standards of health and wellbeing as it fosters healthy lifestyles. An environment that is compatible with good health reflects the need for people to have access to resources and equitable outcomes for Māori.

In the 2021 Evaluation of the Nga Haerenga Great Rides of New Zealand it was noted that those identifying as Maori were underrepresented as users of current trails. Only 4% of users in this survey identified as Maori, while making up 13% of our total population. The proposed development will contribute to addressing this inequity.



Tolaga Bay Wharf - Vaughan Gillard and Tourism Eastland, Tairawhiti Gisborne, New Zealand

Health & wellbeing - Connections to Nature

Māori have always recognised the importance of taiao (connection to the environment) as vital to health and well-being, and holding an intrinsic relationship with our environment. A growing body of research also shows the benefits to whānau and tamariki of time spent in nature; benefits for many areas of their lives. Te Ara Tipuna will enhance provision of opportunities for locals and land owners to experience their whenua and rohe in a way that improves their physical, mental, emotional and spiritual wellbeing.

Anaura Bay Island, Tairawhiti Gisborne, New Zealand

Construction

While acknowledging that during construction there may be some effects on users of the environment such as hunters, the staging of the construction should minimise these effects.

Operational

Once constructed and operational the Ara provides for several lifestyle activities (cyclists, walkers and horse trekkers) that enhance quality of life and connections to nature.

The proposed trail will positively impact the lifestyle of existing residents by providing easy access to the Ara as an avenue for deepening connections to the whenua for residents. The intentional choice to connect every community to the trail is an important element of ensuring equitable access for every community along the trail.

A review by Paul Blaschke, commissioned by DOC in 2012, found that the 1.6 million annual visits by adult New Zealanders to public conservation areas contribute to New Zealand's health and wellbeing outcomes, especially to increased levels of physical activity and improved mental health and wellbeing.

Research suggests that exposure to natural environments has direct, positive effects on human health and wellbeing:

- by providing opportunities to undertake physical activity
- by facilitating the development of social capital
- directly, through restorative effects.

The review found that many of the benefits documented appear to be available from all types of terrestrial (green) or freshwater or marine (blue) space.

Three ways to provide health and wellbeing through green/blue spaces;

1. **Providing opportunities to undertake physical activity**
   Green space provides opportunities to partake in physical activity, strongly associated with better physical and mental health outcomes, and can play a role in both preventing and managing chronic disease.

2. **Facilitating the development of social capital**
   Green space may help develop social capital by providing places to interact with other people and undertake activities with groups and by strengthening people's sense of attachment to their natural environment and providing a sense of national or cultural identity. There is a well-established link between social capital and improved physical and mental health.

3. **Directly, through restorative effects**
   Most research has been focused on so-called 'restorative' effects such as recovery from stress and attention fatigue. Recent research also suggests that green space might directly affect physical or mental health in other ways, such as the effects of various sensory stimuli that forests offer, reduced blood sugar levels in diabetics, or possibly beneficial direct effects of volatile organic compounds found in forest trees on human immune functioning.

Waste Minimization Management

The Waste Minimisation Act 2008[32] encourages a reduction in the amount of waste we generate and dispose of in New Zealand. The aim is to reduce the environmental harm of waste and provide economic, social and cultural benefits for New Zealand.

How the Act seeks to achieve its Aim

To achieve its aims the Act proposes to;

- impose a levy on all waste disposed of in landfills to generate funding to help local government, communities and businesses minimise waste.
- establish a process for government accreditation of product stewardship schemes which recognises those businesses and organisations that take responsibility for managing the environmental impacts of their products.
- require product stewardship schemes to be developed for certain 'priority products' where there is a high risk of environmental harm from the waste or significant benefits from recovering the product.
- allow for regulations to be made to control the disposal of products, materials or waste, require take-back services, deposit fees or labelling of products.
- allow for regulations to be made that make it mandatory for certain groups (e.g., fill facility operators) to report on waste to improve information on waste minimisation.
- clarify the roles and responsibilities of territorial authorities with respect to waste minimisation.
- establish the Waste Advisory Board to give independent advice to the Minister for the Environment on waste minimisation issues.

Te Ara Tipuna has a duty to everyone affected by the project. Te Ara Tipuna will need to consult, co-operate and co-ordinate with other stakeholders and communities to meet our shared responsibilities with regards to waste minimisation through the below goals and objectives for waste avoidance and reduction during construction and at time of operation.

Construction

- Eliminate waste as a priority. The proposed trail will need to ensure that there are robust provisions for the management of waste. Communities have expressed concerns that trail users will leave behind waste.
- Prefer suppliers who have waste minimisation/ environmental plans/credentials.
- Recycle and reuse waste that is created on the job.

Operational

- Eliminate waste as a priority. The proposed trail will need to ensure that there are robust provisions for the management of waste. Communities have expressed concerns that trail users will leave behind waste.
- Prefer suppliers who have waste minimisation/ environmental plans/credentials.
- The utilisation of the passport system that clearly articulates the kawa of the trail-to-trail users, that all rubbish be carried out.
- Recycle and reuse waste that is created on during the ongoing maintenance of the track.

Overall, the health and wellbeing impacts of the [project] are considered to be positive.

East Cape Light House, Tairawhiti Gisborne, New Zealand

7. Decision Making Systems/ Power Dynamics

Definition:

Whether people experience procedural fairness and can make informed decisions. Whether people are enjoying the power to influence decision and can access mechanisms when complaints or grievances are experienced.

Te Ara Tipuna seeks government investment across five years and will require an upfront commitment to ensure sustained community belief, which has been burnt by past ad hoc government investment.

Multi-level and cross-sector collaboration and collective impact that sees RST's, Government organisations, community organisations and central government being guided by the voice of Māori and communities.

Te Ara Tipuna is a platform for partnering with central and local government, agencies and industry, to create the capillaries of local level enterprise and economic development, movement and connection, through building the infrastructure of the ara (access ways) and ancillary amenities for pedestrian, cycling, horse trekking from Gisborne to Opotiki.

Te Ara Tipuna takes a different approach by seeking to create a whenua-based artery around Te Tairawhiti that will sustain economic, social and cultural rejuvenation. It will be the springboard for a multi-layer across- government approach that supports the area to thrive.

Ngati Porou, Te Whanau-a-Apanui, Ngai Tai ki Torere and Te Whakatohea have rich histories, strong cultural infrastructure, and high ambitions for the future of their people, their communities, and their way of life. Conventional government activity has relied on top-down interventions. Te Ara Tipuna takes, instead, a bottom-up approach – building sustainable enterprise and wellness by investing in the cultural wealth that already exists in the region. From whenua to whanau to wellbeing.

Te Ara Tipuna seeks to transform the region from a 'negative' consumer of government benefits and remedial services, to a mostly self- sufficient, self-directed, resilient, capable, culturally wealthy community again.

Key feature of trails is the dependence on partnerships between the state, territorial authorities and local communities all involved in the planning and development and additional fund raising.

Te Ara Tipuna could be described as a global multifunctional rural space – the site of primary and other production e.g., agriculture, horticulture, viticulture, aquaculture, tourism, commercial recreation and nature, heritage and cultural conservation which together underpin the economics of small towns and settlement.

The aim of the trail is to deliver positive community outcomes which include creating something for visitors to enjoy, providing opportunities to build stronger and wealthier communities and a better place to live in.[33]

Overall, the decision-making impacts of the [project] are considered to be positive.

Note: The assessment of potential social impacts is considered either positive or negative, derived from whether the expected social consequences enhance or diminish community values and social infrastructure. This assessment considers social impacts at the local scale only.

Hikurangi Maunga, photo by Hilz Kahaki

7. Conclusion

Based on the above considerations, it is concluded that there is sufficient demand for the proposed Te Ara Tipuna Trail.

Te Ara Tipuna will create the conditions in which Ngati Porou, Te Whanau-a-Apanui, Ngai Tai ki Torere and Te Whakatohea can regenerate the cultural wealth of a lively, healthy society of connected communities, culturally fluent and capable, enterprising and economically active, environmental protectors and sustainers, in revitalised whānau, hapu, and iwi relationships.

The potential impact of Te Ara Tipuna is therefore immense, with the added opportunity for a distinct tourism experience into the heart of Te Tairawhiti on foot, cycle and horseback. The trail opens a part of Aotearoa where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai. The opportunities for systemic conversations and changes in equity, power dynamics, policy shifting and relationships and connections is therefore massive, as Te Ara Tipuna will be able to offer warm, welcoming and unique experiences of manaaki as all individuals across Aotearoa can walk into a marae, prepare kai in the kauta, eat and wash dishes, korero, sleep in the wharenui and head off into the day and to the next equally proud hapu along the ara.

Overall, the social impacts of the proposed development are expected to have a positive impact on the population of the rohe of Ngati Porou, Te Whanau-a-Apanui, Ngai Tai ki Torere and Te Whakatohea and help address the need for increased employment opportunities, better lifestyle and improved well being.

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Appendices

Appendix A
Social Impact Assessment (SIA) Worksheet (see attached file)

East Cape Road, Tairawhiti Gisborne, New Zealand

RauTipu RauOra

healthy families East Cape
He oranga whānau

Appendix 16:

Traffic Impact Assessment

Te Ara Tipuna Trail

Transport Assessment and Management Plan

Prepared for Te Runanganui o Ngati Porou

July 2023

URBAN CONNECTION
local and connected

Contents

1. Introduction

1.1. Background

This report has been prepared for Te Runanganui o Ngati Porou as an overarching Transport Assessment and Management Plan to support the Resource Consent application for the Te Ara Tipuna Trail.

Te Ara Tipuna represents investment in sustainable base infrastructure in Te Tairawhiti, as a network of ara/ accessways around the East Coast, for local communities and visitors to hike, bike, and trek; and to provide the connection and catalyst for businesses and employment offering services, provisions and experiences.

In its entirety, Te Ara Tipuna is 500 kms traversing the rohe of Ngati Porou and of Te Whanau-a-Apanui, engaging with some of the most beautiful, rugged, isolated land and waterways of Aotearoa New Zealand; experiencing cultural icons of marae and mountains, and the unique character of its local people and communities.

The trail utilises a mix of trails along the coastal beaches, private land and adjacent to local roads and state highways. Figure 1 shows the extent of the trail. Depending on the use, i.e. hike, bike and horse trek, the trail takes varying routes and also has some side loops for points of interest.

The development of Te Ara Tipuna is currently at concept level, and a large-scale project. It is proposed that this Transport Assessment and Management Plan is used to support the approval of the transport related aspects of the project, recognising additional detail will be required as the level of detail for the design evolves for each stage. The project team will work closely with the relevant Roading Controlling Authorities throughout the detailed design process.

Figure 1 Te Ara Tipuna Route

This transport management plan focuses on the following typical interactions;

- areas where the trail runs adjacent to roads,
- intersects with them, and
- areas where parking provisions are to be provided for the trail users.

The purpose of the plan is to assist with the acceptance and approval of the standard design templates and interventions for treating these typical interactions for the majority of the project. At site specific locations where these standard templates and interventions are not appropriate, which will be the exception rather than the rule, site specific designs will be developed with a structured process for engagement with the relevant Road Controlling Authority (RCA) and staged Safe System Audits (SSA's).

1.2. Trail Users

The trail will be managed by a 'passport' system to allow management of the number of users. This system will control the numbers as the passports will be required to access the trail through the sections of private land.

2. Design Standard

2.1. Design Process

It is proposed to utilise a standard set of design standards for the majority of the trail. The proposed typical trail cross-sections for where the trail is within the road reserve and standard design treatments for road crossings are detailed in Section 2.2.

Site specific treatments will be developed for scenarios where these treatments may not be appropriate. These are likely to be at areas where the users may be;

- required to cross bridges,
- travel through pinch points within the road reserve,
- constrained by sight distance.

Each stage of the project development will have the following steps where the trail is within the road reserve:

- A site visit to undertake site measurements, identify pinch points, measure sight distance where required and determine the appropriateness of the standard treatments;
- Undertake a topographical survey as required;
- Develop plans to scheme level, including any site-specific treatments;
- Engage with the relevant RCA for feedback on the scheme design;
- Undertake a preliminary SSA;
- Engage with relevant RCA on the results of the SSA;
- Update design to detailed design level, including feedback from the RCA and SSA;
- Undertake a detailed design SSA;
- Update design to construction level, including feedback from the RCA and SSA; and
- Following construction, a post construction SSA will be undertaken and shared with the relevant RCA.

The project will have an element of continuous improvement in the design process as it will be implemented in a staged manner and the learnings from engagement with the RCA and from the completed SSA can be used in future stages.

2.2. Typical Trail Cross-sections

The extent of this project is too large to develop consistent cross-sections throughout. Typical cross-sections (Refer to Figures 2 – 7) have been prepared as a guideline only to be applied and adapted as appropriate to the constraints of the particular site. The cross-sections provided may not be appropriate in some cases where extreme ground instability or hazardous areas are present. In these circumstances site specific designs will be developed and worked through with the relevant RCA.

For context all the typical cross-sections for the proposed path are shown in Appendix A. These include those that are outside the road corridor. The relevant typical sections for the transport management plan are described in Table 1.

Table 1 Typical Trail Cross-section Descriptions

Cross-section	Name	Description
C/S 7	Narrow lane adjacent to state highway	For rural State Highways where there are width constraints. Separated from traffic lane by 0.5m and flexi-post bollards. 1 – 1.5m trail on unsealed shoulder.
C/S 8	Multi-lane path adjacent to state highway	For rural State Highways where there are not width constraints. Separated from traffic lane by 0.5m and flexi-post bollards. 1 – 1.5m trail on unsealed shoulder and additional space beyond which allows other trail users to pass.
C/S 9	Pathways adjacent to state highway in residential settlement	Utilises existing 1 – 2m cycle lanes on one side of the road and existing 2 – 3m footpath and berm for walking and horses.
C/S 10	Walkway alongside low-volume local road	For use on low volume roads. A 1.2m walkway constructed on the most practical side of the road.
C/S 11	Low volume local road: Utilising the existing carriageway	For use on low volume roads. Trail utilises one side of the existing carriageway for users.
C/S 12	Local road fit for purpose	Low volume local roads where trail users can either utilise the existing berm or the carriageway.

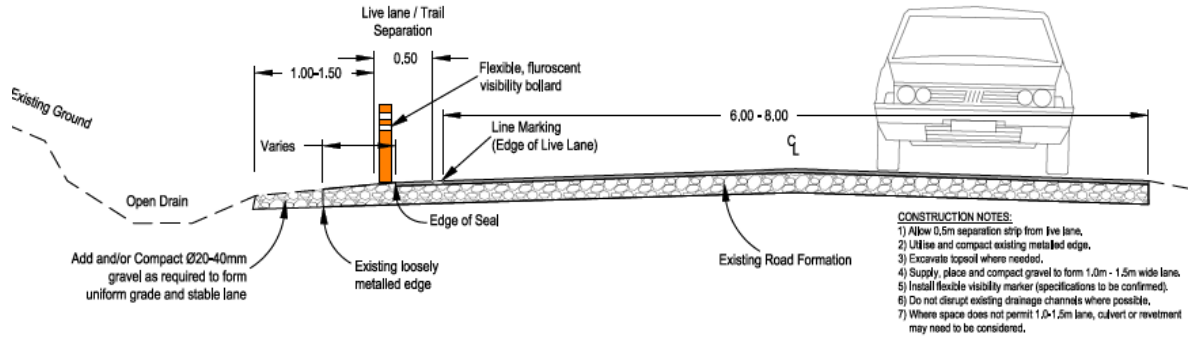


Figure 2 Typical Trail Cross-section 7: Narrow lane adjacent highway

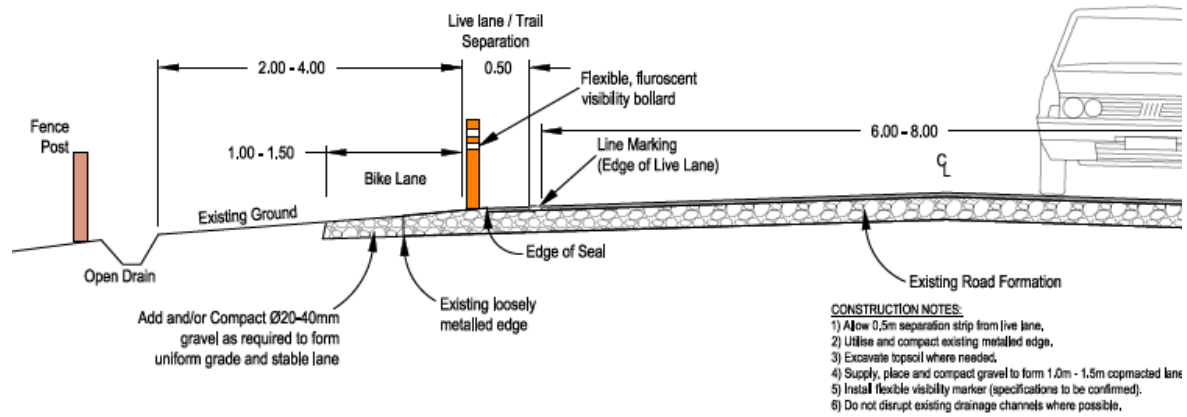


Figure 3 Typical Trail Cross-section: Multi-lane path adjacent to highway

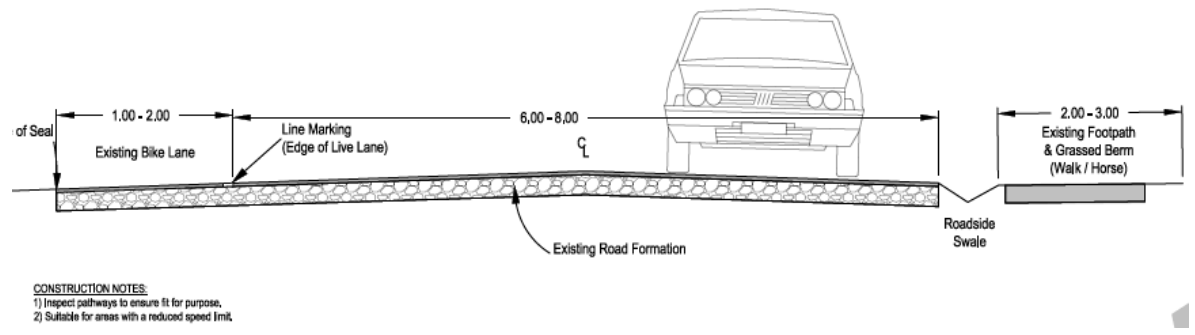


Figure 4 Typical Cross-section 9: Pathways adjacent highway in residential settlement

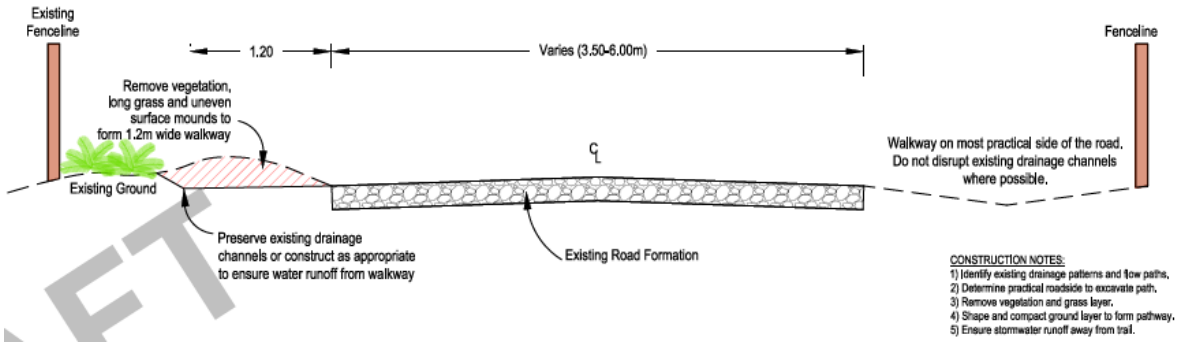


Figure 5 Typical Trail Cross-section 10: Walkway alongside low-volume road

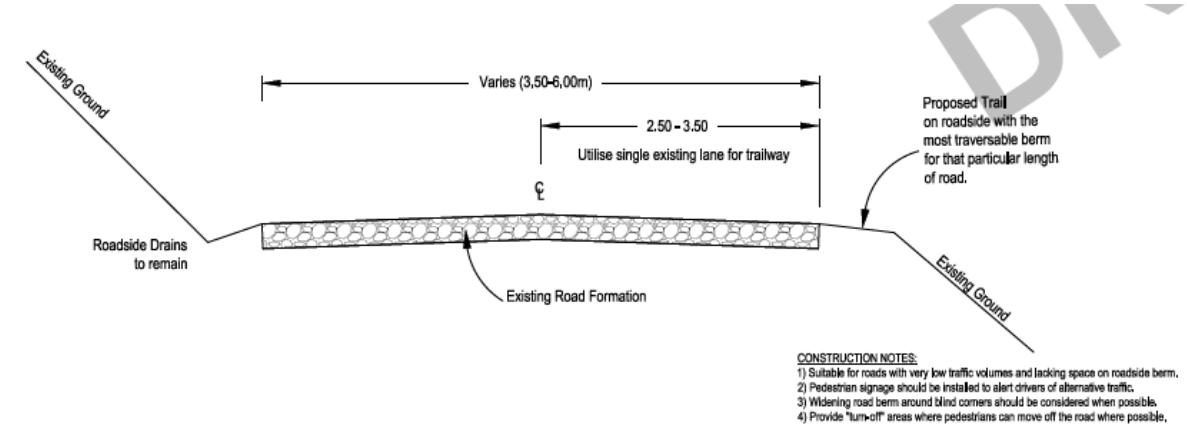


Figure 6 Typical Trail Cross-section 11: Low-volume road, utilising existing road carriageway

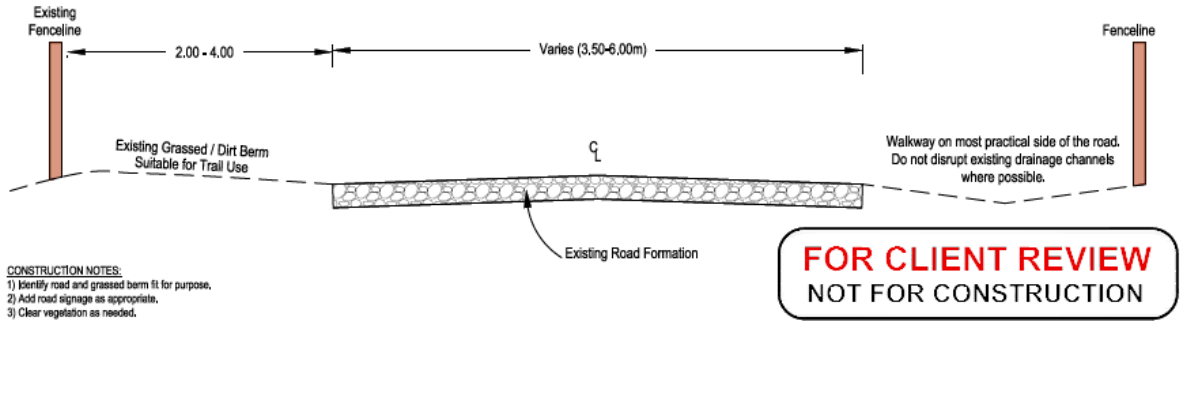


Figure 7 Typical Trail Cross-section 12: Existing local road fit for purpose

2.3. Road Crossings

2.3.1. Typical Pedestrian Crossing 1 – Low volume

This typical crossing point (Figure 8) should be used for all crossings on SH35 in the rural area, and for all crossings on local roads. The exact width will be determinate on whether it is for pedestrians/cyclists or horses, or a combination of two of these, or all three.

Trail crossings will cross the road at 90 degrees where possible to limit the crossing distance. The trail will have oncoming warning signs and wayfinding signs, and there will be advance warnings signs on the road, with at least 2 reminder signs. All crossings are to have at least the minimum forward visibility to enable a vehicle to safely stop before the crossing if a user steps out. There also needs to be adequate sight distance for trail users to ensure the road is clear in both directions before they safely cross over. The minimum stopping distances will be in accordance with Table 3.1, Austroads Guide to Road Design Part 4A. For a sealed road, with a posted 100 km/h speed limit, the approach sight distance required is 165m with a normal reaction time of 2 seconds. In a 50 km/h speed limit area, the sight distance required is 55m at 2 seconds reaction time. These distances should be clear of all foliage/tress/obstructions that are higher than 1m. These distances should also be provided for vulnerable user's sight distance requirements (refer to Section 3.3 in Austroads Guide to Road Design Part 4A). If these distances cannot be met, the crossing locations should be relocated to be as close as possible to these distances.

Appropriate speed management measures may be required on SH35 to slow down vehicles on the approaches to these crossings if appropriate sight distance cannot be met. This will be part of the ongoing process of discussions with the RCA's.

2.3.2. Typical Pedestrian Crossing 2 – Urban Area

In urban areas some existing facilities may be utilised. Where new facilities are required, they may include the installation of pedestrian refuges, kerb extensions combined with the relevant signage and markings. A pedestrian refuge will be included if the crossing distance is greater than 9m.

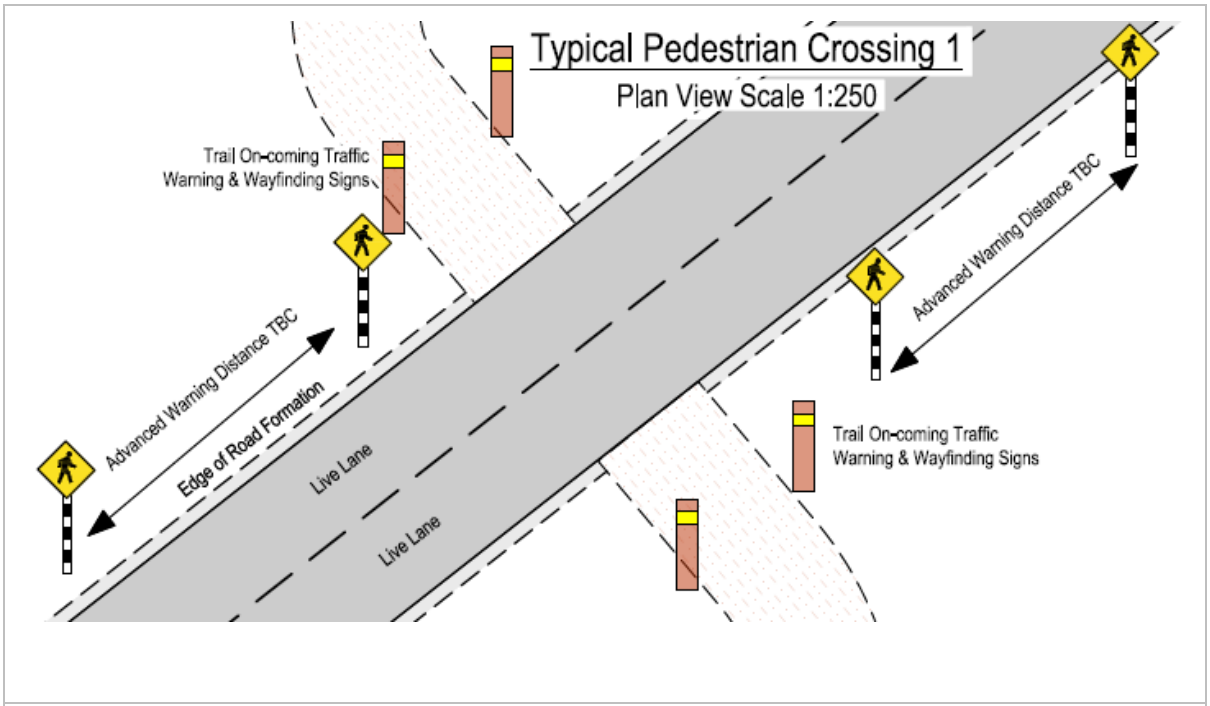


Figure 8 Typical Pedestrian Crossing 1: Low volume road crossing

2.4. Other Design Features

Some sections of the trail or crossing points may require additional engineering features to provide an appropriate level of service and safety. These will be assessed in more detail at the scheme design stage. These additional features may include:

- Priority control or passing bays – There may be locations where there are pinch points where the trail maybe narrower than desirable. In these locations priority control could be installed for the trail users (i.e. similar to a one-way bridge) and / or passing bays on the approaches to allow opposing users to wait safely;
- Speed management – There may be locations where the trail is closer to the road or highway than desired. In these locations speed management may be an appropriate and/or additional measure to be implemented;
- Electronic signs – User or sensor activated electronic signs may be utilised where the users are required to utilise existing bridges, at some crossing points or pinch points to advise motorists of their presence;
- Static signs – Traditional static signs may also be utilised in some locations to raise the awareness of motorists to the presence of the trail users adjacent to the road or crossing the road ahead;
- Traffic calming – This can take the form of various interventions including raised safety platforms, speed cushions, pedestrian refuges, audio tactile pavement markings, road markings, flexi posts, thresholds and gate ways. These may be used to reduce vehicle speeds where required;
- Sight distance improvements / widening on bends – Where required sight benching or widening may be constructed on curves;
- Street lighting – Lighting may be required at crossing points where refuges or kerb extensions may be required; and
- Shuttles – ultimately there may be sections where engineering solutions may not be able to mitigate risks and some form of shuttle service may be required.

3. Trail Summary

Each day of the trail has been summarised in Table 2. This details the relevant RCA, the roads where sections of the trail will be formed, the typical cross sections proposed, the type and number of road crossings, parking requirements and details on the bridges within that section of the trail.

Table 2 Summary of trail sections

Day	RCA's	Roads	Typical Sections	Road Crossings (No.)	Carpark	Utilise existing bridge or clip on (No.)	New clip on bridge	New bridge
1	Gisborne DC / Waka Kotahi	SH35, Makorori Beach Road. Tatapouri Rd	C/S 7, C/S 11	Type 1 (1), Type 2 (3)	Yes		Yes x 2 (SH35)	
2	Gisborne DC / Waka Kotahi	SH35, Pa Road Pouawa Road	C/S 7, C/S 10	Type 1 (2), Type 2 (1)				Yes (private)
3	Gisborne DC	Pakarae Rd, Waihau Rd	C/S 10	Type 1 (2)				Yes (private)
4	Gisborne DC / Waka Kotahi	Shelton Rd, Hauiti Rd, SH35, Cook St	C/S 10	Type 1 (2), Type 2 (1)		Yes (SH35)		Yes x 3 (private)
5	Gisborne DC / Waka Kotahi	SH35, Cook St, Kaiaua Rd	C/S 7, C/S 10	Type 1 (2), Type 2 (1)		Yes (Kaiaua Road)		Yes (private)
6	Gisborne DC	Kaiaua Rd, Lockwood Rd, Anaura Rd	C/S 10	Type 1 (1)				
7	Gisborne DC / Waka Kotahi	Anaura Rd, SH35, Kaiawha Rd	C/S 7, C/S 10, C/S 11	Type 1 (1), Type 2 (1)		Yes (SH35)		
8	Gisborne DC / Waka Kotahi	SH35, Waipiro Rd, Waikawa Road	Existing footpath, C/S 7, C/S8, C/S 10	Type 1 (2)			Yes (SH35)	Yes (private) Waikawa Stream
9	Gisborne DC / Waka Kotahi	SH35, Kiekie Rd, Kopuaroa Rd, Parapara	C/S 7, C/S 10, C/S 11	Type 1 (3)		Yes (local road)	Yes (SH35)	Yes (private)

		Rd, Whareponga Rd						
10	Gisborne DC	Whareponga Rd, Reporua Rd	C/S 10	Type 1 (3)		Yes		Yes (private)
11	Gisborne DC / Waka Kotahi	Reporua Rd, Tuparoa Rd, Walker Rd, Waiomatatini Rd, SH35	C/S 7, C/S 10	Type 1 (4)		Yes		
12	Gisborne DC / Waka Kotahi	Waiomatatini Rd, SH35	C/S 7, C/S 10	Type 1 (11)		Yes	Yes x 5 (SH35)	
13	Gisborne DC	Rangitukia Rd	C/S 10, C/S 11	Type 1 (4)				Yes x 2
14	Whakatane DC	Rangitukia Rd, East Cape Rd	C/S 10					
15	Whakatane DC	East Cape Rd, Moana Parade	C/S 10			Yes x 3	Yes	
16	Whakatane DC	Te Arawapia Rd, SH35, Onepoto Rd	C/S 7, C/S10	Type 2 (1)			Yes x 2 (SH35)	
17	Whakatane DC / Waka Kotahi	Wharf Rd, Wharekahika Rd, SH35	C/S 7, C/S 10, C/S 11	Type 1 (1), Type 2 (1)			Yes (Wharf Road)	Yes x 2 (private)
18	Whakatane DC / Waka Kotahi	SH35, Ngarue Road	C/S 7	Type 2 (3)			Yes x 2 (SH35)	
19	Whakatane DC / Waka Kotahi	Cape Runaway Rd, SH35	C/S 7, C/S 10,				Yes (SH35)	Yes (private)
20	Whakatane DC / Waka Kotahi	Orete Point Rd, SH35	C/S 7, C/S 10				Yes x 4 (SH35)	Yes x 2 (private)
21	Whakatane DC / Waka Kotahi	SH35	C/S 7	Type 2 (2)			Yes (SH35)	
22	Whakatane DC / Waka Kotahi	SH35, Waiorore Rd	C/S 7, C/S 10				Yes x 3 (SH35)	
23	Whakatane DC / Waka Kotahi	SH35	C/S 7				Yes (SH35)	Yes (private)
24	Whakatane DC / Waka Kotahi	SH35	C/S 7				Yes (SH35)	
25	Whakatane DC / Waka Kotahi	SH35, Opape Beach Road	C/S 7				Yes (SH35)	Yes (private)

26	Whakatane DC / Waka Kotahi	SH35, St John Street, Church Street	C/S 7			Yes (private)	Yes (SH35)	Yes (private)

4. Staging

The trail is likely to be implemented in stages. There will be stages which are easier to apply the standard interventions to, construct or involve predominantly private land and very low volume roads. These will be identified and evolved further in the initial period of the next phase.

Investigation and design of other sections which require more site-specific designs for some locations can carry on in parallel to this process with engagement with the RCA's to agree solutions.

Where there are gaps in the physical construction of the trail during the staging, shuttle services may be implemented to bridge these.

5. Conclusion

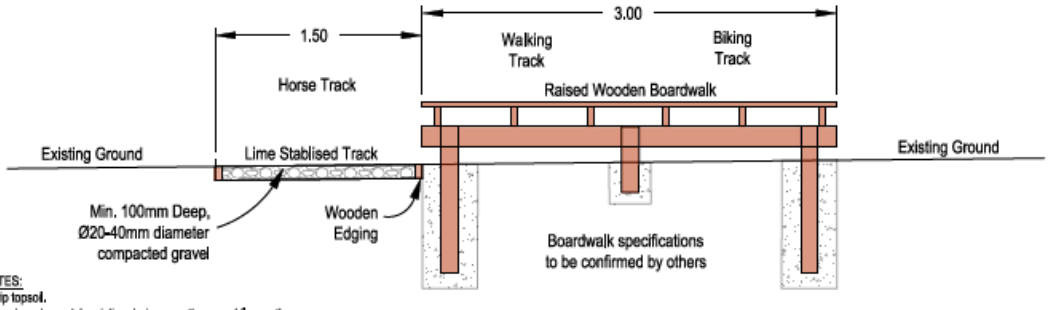
The trail, crossing points and bridge crossings can be implemented via standard engineering interventions with specific designs at some locations. The project team will work closely with the Road Controlling Authorities throughout the design process.

As outlined in Section 2.1, each phase of the design and construction will be subject to Safe Systems Audits.

Subject to these audits being completed and any issues addressed, the transport effects are considered to be minimal.

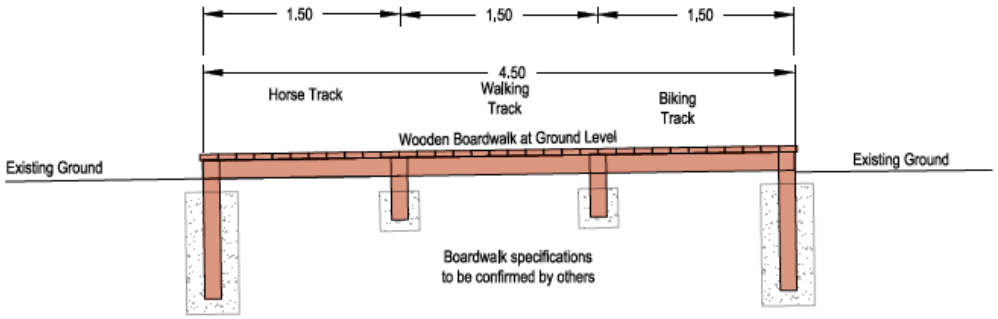
Appendix A – Cross-sections

Typical Trail Cross-section 1
Gold Tier



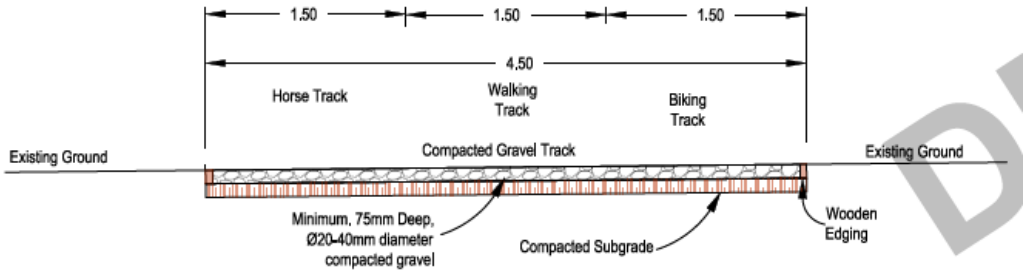
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Supply, place, compact and lime stabalise the track.
4) Auger pile locations.
5) Construct boardwalk per design documentations.
6) Allow stormwater runoff below boardwalk.
7) Construction specifications by others.

Typical Trail Cross-section 2
Silver Tier



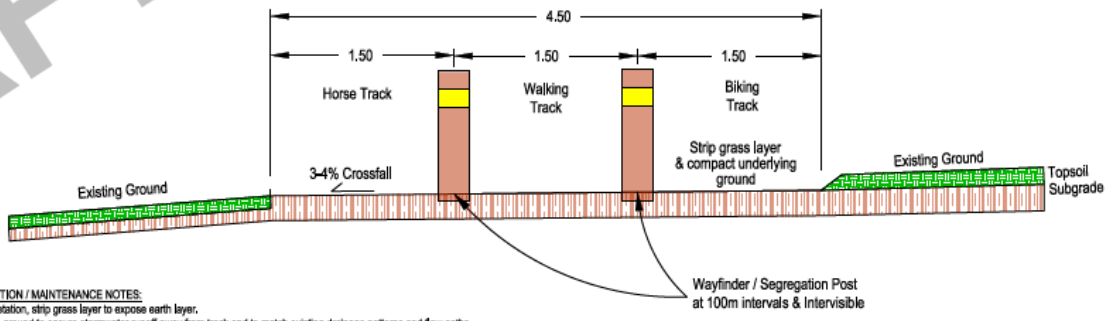
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Auger pile locations.
5) Construct boardwalk per design documentations.
6) Support joists at ground level to run perpendicular to trail direction with spacings to allow stormwater runoff through the structure.
7) Construction specifications by others.

Typical Trail Cross-section 3
Bronze Tier



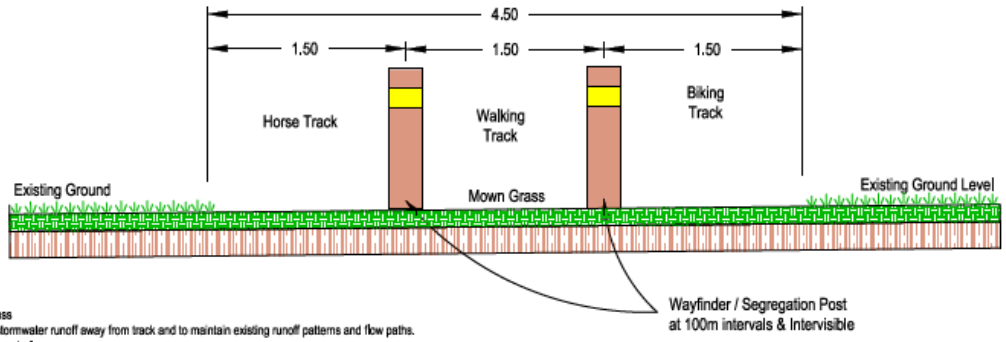
CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Install wooden edgings.
4) Supply, place, compact and lime stabalise the track.

Typical Trail Cross-section 4
Standard Track 1



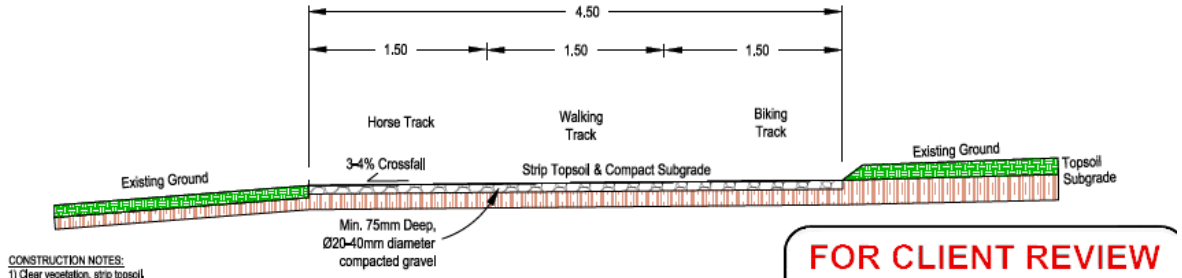
CONSTRUCTION / MAINTENANCE NOTES:
1) Clear vegetation, strip grass layer to expose earth layer.
2) Shape the ground to ensure stormwater runoff away from track and to match existing drainage patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specification and information TBC).
5) For sites where a dirt track is preferred and practical.
6) Regular maintenance to prevent grass regrowth.

Typical Trail Cross-section 5
Standard Track 2



CONSTRUCTION NOTES:
1) Clear vegetation and mow grass
2) Shape the ground to ensure stormwater runoff away from track and to maintain existing runoff patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specification and information TBC).
5) Suitable in areas where a grassed track is preffered and appropriate (e.g. through the back of rural hillside)
6) Cyclability of the track to be considered where bike access if envisioned.

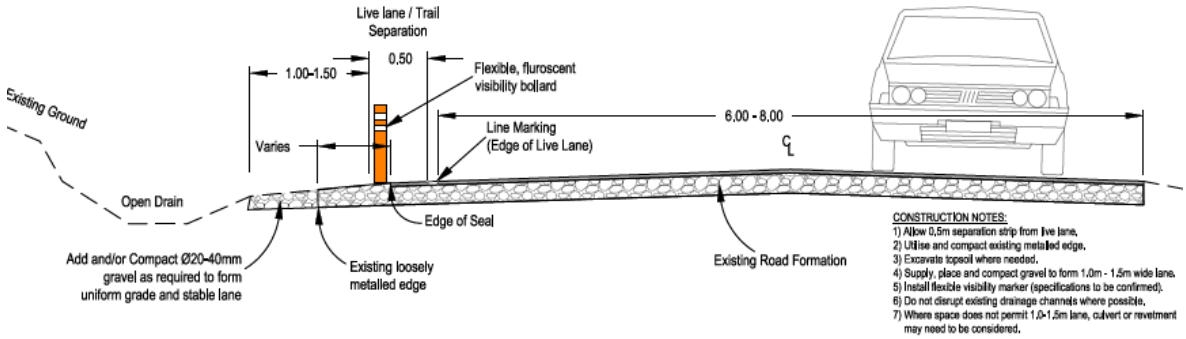
Typical Trail Cross-section 6
Standard Track - Steep or Unstable Ground



CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil.
2) Shape and compact subgrade, match existing drainage patterns and flow paths.
3) Supply, place, compact gravel track formation.

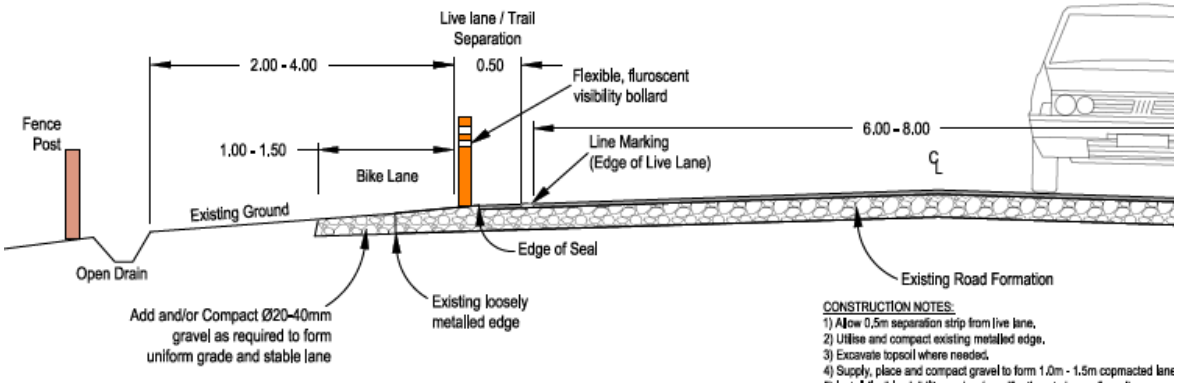
FOR CLIENT REVIEW
NOT FOR CONSTRUCTION

Typical Trail Cross-section 7
Narrow Lane Adjacent Highway



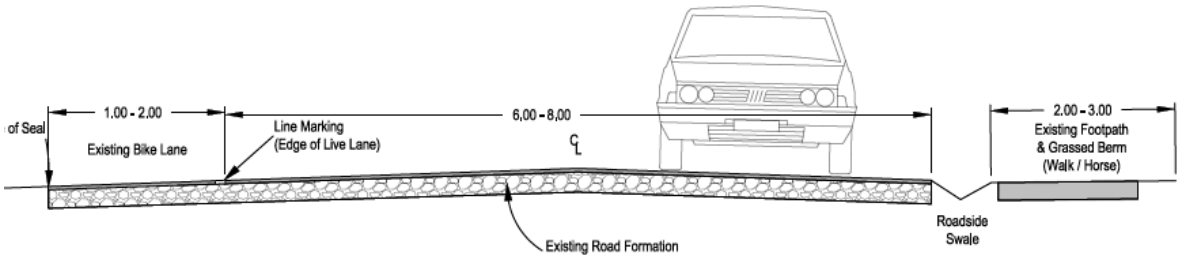
CONSTRUCTION NOTES:
1) Allow 0.5m separation strip from live lane.
2) Utilise and compact existing metalled edge.
3) Excavate topsoil where needed.
4) Supply, place and compact gravel to form 1.0m - 1.5m wide lane.
5) Install flexible visibility marker (specifications to be confirmed).
6) Do not disrupt existing drainage channels where possible.
7) Where space does not permit 1.0-1.5m lane, culvert or revetment may need to be considered.

Typical Trail Cross-section 8
Multi-lane Path Adjacent Highway



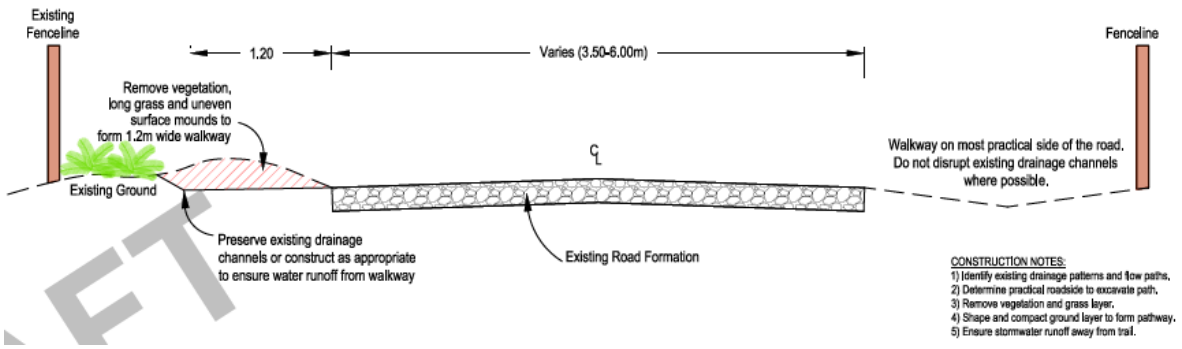
CONSTRUCTION NOTES:
1) Allow 0.5m separation strip from live lane.
2) Utilise and compact existing metalled edge.
3) Excavate topsoil where needed.
4) Supply, place and compact gravel to form 1.0m - 1.5m compacted lane
5) Install flexible visibility marker (specifications to be confirmed).
6) Do not disrupt existing drainage channels where possible.

Typical Trail Cross-section 9
Pathways Adjacent Highway in Residential Settlement



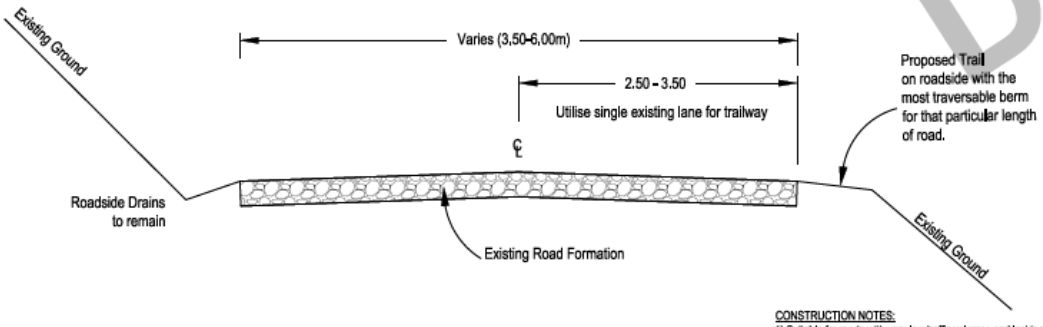
CONSTRUCTION NOTES:
1) Inspect pathways to ensure fit for purpose.
2) Suitable for areas with a reduced speed limit.

Typical Trail Cross-section 10
Walkway Alongside Low-Volume Road



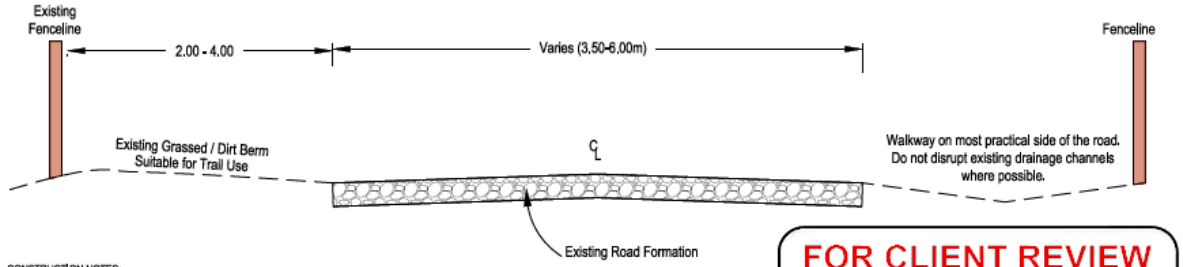
CONSTRUCTION NOTES:
1) Identify existing drainage patterns and flow paths.
2) Determine practical roadside to excavate path.
3) Remove vegetation and grass layer.
4) Shape and compact ground layer to form pathway.
5) Ensure stormwater runoff away from trail.

Typical Trail Cross-section 11
LV Road: Utilising Existing Road Carriageway



CONSTRUCTION NOTES:
1) Suitable for roads with very low traffic volumes and lacking space on roadside berm.
2) Pedestrian signage should be installed to alert drivers of alternative traffic.
3) Widening road berm around blind corners should be considered when possible.
4) Provide "turn-off" areas where pedestrians can move off the road where possible.

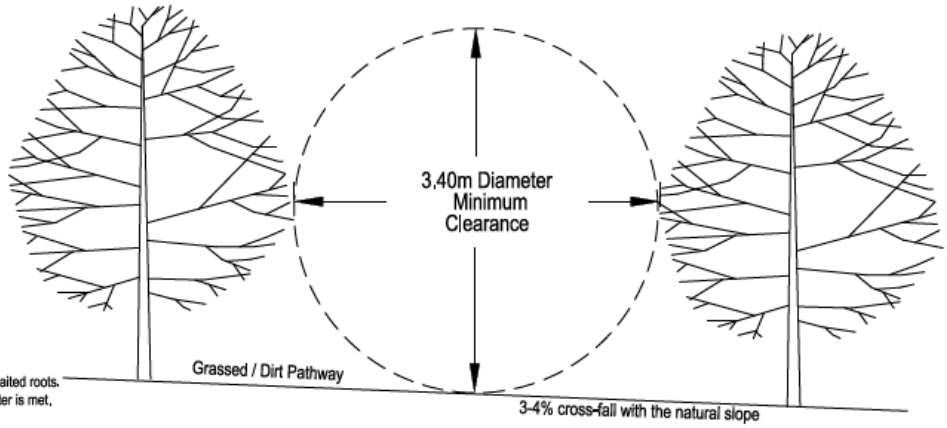
Typical Trail Cross-section 12
Existing Local Road Fit for Purpose



CONSTRUCTION NOTES:
1) Identify road and grassed berm fit for purpose.
2) Add road signage as appropriate.
3) Clear vegetation as needed.

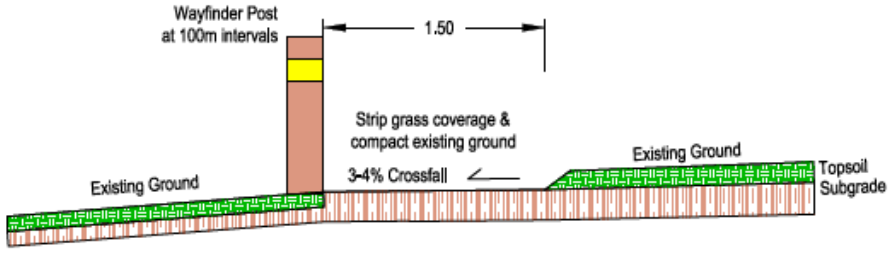
FOR CLIENT REVIEW
NOT FOR CONSTRUCTION

Typical Trail Cross-section 13
New Pathway Through Existing Vegetation



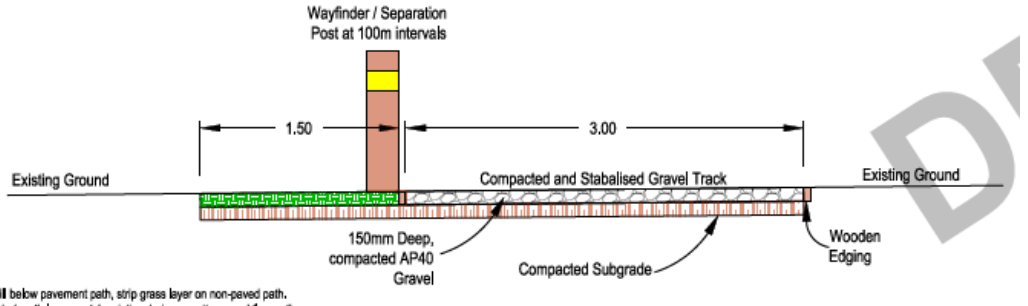
CONSTRUCTION NOTES:
1) Remove larger vegetations and assocaited roots.
2) Trim trees to ensure clearance diameter is met.
3) Remove top layer of grass.
4) Shape and compact underlying soil, maintain existing drainage paths.
5) Ensure wayfinding as appropriate.

Typical Trail Cross-section 14
Solo Bike Trail Through Rural Hillside



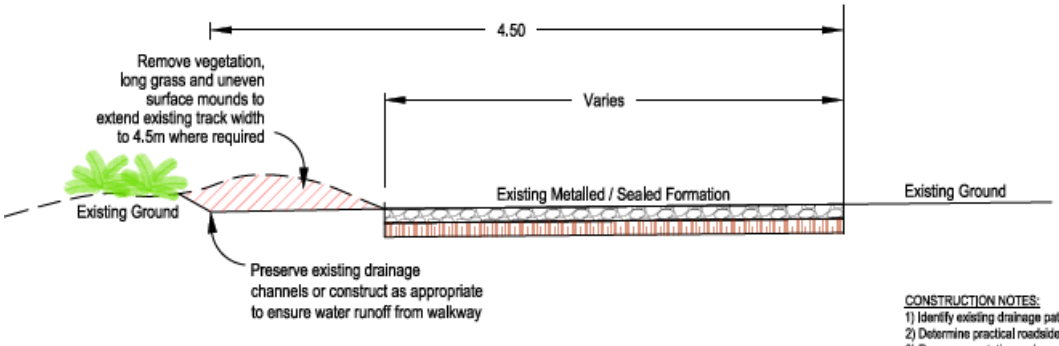
CONSTRUCTION / MAINTENANCE NOTES:
1) Clear vegetation, strip grass layer to expose earth layer.
2) Shape the ground to ensure stormwater runoff away from track and to match existing drainage patterns and flow paths.
3) Compact existing ground to form trailway.
4) Install wayfinders as appropriate (wayfinder specification and information TBC).
5) Regular maintenance to prevent grass regrowth.

Typical Trail Cross-section 15
Tokomaru / Ruatoria Trail (with ATV Use)



CONSTRUCTION NOTES:
1) Clear vegetation, strip topsoil below pavement path, strip grass layer on non-paved path.
2) Shape and compact subgrade / earth layer, match existing drainage patterns and flow paths.
3) Install wooden edgings.
4) Supply, place, compact and lime stabalise the track.

Typical Trail Cross-section 16
Existing Formation within Private Property or Paper Roadway



CONSTRUCTION NOTES:
1) Identify existing drainage patterns and flow paths.
2) Determine practical roadside to excavate path.
3) Remove vegetation and grass layer.
4) Shape and compact ground layer to form pathway.
5) Ensure stormwater runoff away from trail.

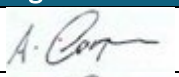
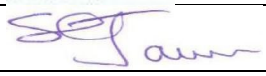
6. Disclaimer

This report has been prepared by Urban Connection Limited for Te Runanganui o Ngati Porou and may only be used and relied on by Te Runanganui o Ngati Porou for the purpose agreed between Urban Connection Limited and Te Runanganui o Ngati Porou as set out in this report. By default, this means that Te Runanganui o Ngati Porou can use and rely on this report for the purposes of supporting the consent application.

Urban Connection Limited otherwise disclaims responsibility to any person other than Te Runanganui o Ngati Porou arising in connection with this report. Urban Connection Limited also excludes implied warranties and conditions, to the extent legally permissible. The services undertaken by Urban Connection Limited in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. Urban Connection Limited has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

Te Ara Tipuna Transport Management Plan V4
Document Status: Final

Revision	Date of Issue	Author	Reviewer	
			Name	Signature
V1	21 June 2023	T Harrison	A Campion	
V2	30 June 2023	T Harrison	A Campion	
V3	4 July 2023	T Harrison	S James	
V4	10 July 2023	T Harrison	S James	

Appendix 17:

Consultation and Engagement Report

Te Ara Tipuna

Consultation and Engagement

Contents

Section 1. Overview

Over 50+ engagements; 10 landowner and community meetings, 30 stakeholder hui, and 10+ hui with iwi and hapu.

The Proposal

The full Te Ara Tipuna Proposal, developed with funding from Te Puni Kokiri and disbursed through the project fund-holder, Trust Tairawhiti, and produced in June 2021, set out the plan and approach to engagement and consultation. [insert footnote and link to full report]

The actual approach, in the circumstances, are described below.

Introduction

Despite significant challenges of project scale, pandemic upheaval, constant and devastating weather events, engagement, communication, and information sharing by and about the project has been a priority. So, too, has the cultural imperative of embracing the Ngati Porou whakapapa to Te Whanau a Apanui, the natural geographic alignment, and the sharing of the opportunities of the kaupapa. Including, beyond into Ngai Tai and Te Whakatohea.

That is not to say that these combined factors haven't been a challenge. They have been, and are. The parlous situation of SH35, the fragility of connection, and most importantly, the weariness of the people and their communities, have meant changes and adaptations to the circumstances – delays and deferrals that have sometimes frustrated best intentions.

In that vein, while the kaupapa has intended from the outset to honour the connection to Apanui, it has been driven by Ngati Porou. The prerogative to participate remains with Apanui, and of course Ngai Tai and Te Whakatohea. The global consenting approach taken by the project provides for high level inclusion, but respects and recognises the authority of these iwi to make the decision for themselves as to their further involvement.

What's happened so far?

Our consultation and engagement began in 2021, with the first socialisation of Te Ara Tipuna with Te Runanganui o Ngati Porou (TRONPnui), in August 2021, to the first introductory sessions with landowners, hapu, and communities between Gisborne and Opotiki from May/June 2023.

We have met with iwi and hapu representatives, community leaders and members, marae trustees, Māori freehold and general landowners and trustees, and whanau and family that live both within, and have connections to, the three territorial authorities.

We have had discussions with local government representatives at the Gisborne District Council, the Opotiki District Council, and the Bay of Plenty Regional Council. We have pre-briefed consenting teams at each territorial authority, had conversations with elected representatives and senior officials, and taken part in relevant council workshops pertaining to Walking and Cycling strategies.

We have presented Te Ara Tipuna to the (former) Prime Minister Jacinda Ardern, and her Ministerial colleagues, at the Ngati Porou Crown Taumata at Parliament in September 2022. We have received endorsement from the Minister for Māori Development, Willie Jackson, support from Meka Whaitiri as former Walking Access Minister and local MP and provide briefing to Minister Kiri Allan as both local MP and Minister for Regional Development.

We work actively with Te Puni Kōkiri – Ministry for Māori Development, as funder, and sponsor through the dedication of a full-time staff member to assist the project.

We have held eight public meetings in Tolaga Bay, Tokomaru Bay, Ruatoria, Tikitiki, Te Araroa, Wharekahika, Whangaparaoa, and Te Kaha. Two further landowner meetings were held in Ruatoria and Gisborne. A meeting in Opotiki was postponed

and will occur post lodgement and when appropriate.

We acknowledge that despite best efforts, we have been unable currently to reach all impacted groups or individuals. This is in large part due to the devastation caused by Cyclones Hale and Gabrielle in January and February 2023, and the appropriateness of engaging at that time given the multiple pressures people were, and continue, facing.

Notwithstanding the compounding impacts successive weather events have had on infrastructure, namely SH35 and local roads, access to services, and livelihoods, engagement has been interested, positive and optimistic.

Section 2. What we've done

Given the significant impacts of successive weather events, the approach to consultation and engagement was adapted.

Despite best efforts, not all relevant stakeholders have been engaged with prior to lodgement of consents on 13 July 2023. Consultation and engagement will continue post lodgement.

It is important to acknowledge that many of the individuals consulted in one capacity, are also represented in other relevant forums. Although we have been unable in some instances to reach and engage with some groups, individuals in the aggregate have been consulted. For example, the full board of Trustees of Te Runanganui o Ngati Porou have been engaged with, and unanimously support Te Ara Tipuna. Many of these trustees are also Hapu Leads, representatives of Nga Rohe Moana o Nga Hapu o Ngati Porou, trustees of marae, and landowners.

We have, therefore, taken a collective approach to engagement by targeted, and open, invitations to attend introductory meetings. We believe this approach has worked well, given the timeframes, and been able to capture key people who represent many different groups, communities, and land interests.

Iwi (Maunga 1)

On 16 August 2021, Hekia Parata presented Te Ara Tipuna to the full board of trustees of Te Runanganui o Ngati Porou; they unanimously supported the kaupapa. From then on, TRONPnui has sponsored the project.

Te Runanganui o Ngati Porou is represented by 14 elected representatives accountable to the seven Rohenga Tipuna from which they are elected. These representatives are not only trustees for TRONPnui but have a range of responsibilities and roles within the iwi including some (but not all) to Nga Rohe Moana o Nga Hapu o Ngati Porou.

In March 2021, a representative of Te Whanau a Apanui, Willie Te Aho, presented Te Ara Tipuna to the Hapu Chairs of Te Whanau a Apanui. We recognise that, despite our understanding of support and recognition of the kaupapa, it was not officially noted. We intend to meet and present Te Ara Tipuna to the Hapu Chairs.

Te Whanau a Apanui, and Ngai Tai and Te Whakatohea towards Opotiki, have their own strategies and plans. Their inclusion into this kaupapa made sense culturally at this conceptual phase. We respect any discussion and decisions they may choose to have, and make, pertaining to their involvement in Te Ara Tipuna.

Rangatiratanga

This is a kaupapa that is designed to enable rangatiratanga (self-determination), at every level. With this context, the expectation is that iwi, hapu, and marae once briefed will wananga (meet and discuss) amongst themselves whether they are prepared to kawe (carry, hold) the kaupapa. This will also mean engaging with their own hapu, marae, and whanau to endorse the project.

Hapu, Marae, Community & People (Maunga 2)

Public Community Meetings

Initial planning for consultation and engagement at a community level was planned for January 2023; this was delayed due to Cyclone Hale. Planning was then done for engagement in March; this was delayed due to Cyclone Gabrielle. The impacts from these extreme weather events meant that any engagement and consultation would be inappropriate given the significant damage to people's lives, homes, and whenua/land.

We therefore planned, and promoted, a series of consultation meetings in communities between Gisborne and Opotiki in June/July 2023.

- Tolaga Bay, 7 June 2023
- Tikitiki, 12 June 2023
- Ruatoria, 12 June 2023
- Tokomaru Bay, 13 June 2023
- Whangaparaoa, 17 June 2023
- Te Kaha, 18 June 2023
- Opotiki, 18 June 2023 postponed
- Te Araroa, 5 July 2023
- Hicks Bay, 5 July 2023

The meetings were well attended, in relation to the size of the community, by a range of community members and landowners with varying interests in Te Ara Tipuna. An estimated 200+ people attended the eight public meetings. A register was kept of those that attended, with around 50 people indicating their interest in staying informed of Te Ara Tipuna's progress via email.

The meeting planned for Opotiki was postponed following a request from Te Whakatohea leadership due to safety concerns. The meeting planned for Te Araroa was postponed three times due to weather and road conditions. An online meeting was also planned and postponed due to the state of emergency declared on 22 June 2023.

Hapu

We have plans in place to present Te Ara Tipuna to Nga Rohe Moana o Nga Hapu o Ngati Porou, and to Nga Hapu o Te Whānau a Apanui. We have briefed and engaged with individual representatives from both entities, but not to the aggregate whole.

Marae

We have had several marae members and trustees attend public introductory meetings. The meeting in Te Kaha was held at Te Kaha marae, and in Ruatoria at Uepohatu marae. Marae are an integral part of Te Ara Tipuna, as the proposed route passes by at least 60 marae.

Landowners

We held invitation only meetings for landowners in Ruatoria on 29 April 2023, and in Gisborne on 1 May 2023. These meetings were targeted to landowners as we acknowledge that is a specific set of interests that need to be addressed independently.

The invitation to the meetings was sent to a list of chairs, trustees, and landowners of whenua/land that Te Ara Tipuna proposed to traverse. The purpose of these introductory meetings was to present Te Ara Tipuna and outline the process of engagement, expected timeline, and opportunity for discussion.

The meetings were positive and optimistic. In Ruatoria, around 20 landowners attended, representing a significant portion of land interests between Potaka and Tokomaru Bay. In Gisborne, a further 20 landowners attended, representing a significant portion of land interests between Potaka and Gisborne.

Following lodgement, with the support of Te Herenga a Nuku (Walking Access Commission), we intend to have further in-depth negotiations with landowners to reach agreement using Herenga a Nuku's legal instruments, advice, and support.

Central and local government, regional working groups and agencies, and community groups (Maunga 3)

Central government

In April 2021, Hekia Parata met with Te Puni Kōkiri to apply for funding to produce the Te Ara Tipuna business case. She also met with Trust Tairawhiti, who agreed to be the fundholder as the project aligned with their strategy. The business proposal was produced in June 2021.

This first engagement began an ongoing and reciprocal relationship with Te Puni Kōkiri. Hekia

Parata met with, and briefed, several Ministers including Ministers Robertson, Jackson, Allen and (formerly) Whaitiri. In September 2022, at the Ngati Porou Crown Taumata, Hekia Parata presented Te Ara Tipuna as one of two kaupapa to the Government as a project to partner in. Prime Minister Jacinda Ardern, and her ministerial colleagues present, were actively engaged in the presentation and encouraging of its progression. In particular, the Prime Minister focussed on 'securing the route' and directed a senior group of officials to develop a support package for the project.

In November 2022, TRONPnui successfully applied for investment support through Te Puni Kōkiri's Te Ringa Hapai fund, focussed on infrastructure on whenua Māori. This investment contract included three deliverables:

1. Review the route
2. Lodge for consents
3. Build a model of the trails

Te Puni Kōkiri also agreed to a full-time employee to be singularly focused on Te Ara Tipuna and supporting the project team and TRONPnui to complete the contract.

We met with the Tairawhiti Commissioner to discuss the input of Te Ara Tipuna into the Cyclone Gabrielle Recovery Plan. We pitched for the first stage from Tokomaru Bay to Ruatoria, at to be included in the recovery plan. This stage would be constructed to serve as a civil emergency route between communities, built to take emergency vehicles when required.

We have met and briefed NZTA on the project, both at a high level and at the detailed safety and traffic assessment level.

We have met and briefed Heritage NZ.

An important partnership to acknowledge is with Te Herenga a Nuku. They have been an integral part of the project through their experience and extensive knowledge of public accessways. They have agreed to continue supporting the project, particularly around engagement with landowners.

Local government

We have met and pre-briefed each of the three territorial authorities Te Ara Tipuna is proposed to traverse: Gisborne District Council, Opotiki District Council, and Bay of Plenty Regional Council.

We met with the Chief Executive of the GDC, and the Director Community Lifelines, on 4 November 2022, to brief and update on progress. It was a productive hui with great discussion on alignment.

Regional working groups and agencies

We presented to Rau Tipu Rau Ora, a regional governance group represented by iwi chairs from Ngati Porou and Turanga iwi, and at the operational level by government agencies.

Trust Tairawhiti were the fundholders for the development of the business proposal, where we were also introduced to Tairawhiti Trails.

Community Groups

We met with the Hauiti Centre of Excellence, who are involved with the proposed Uawa Trails.

We met with Motu Trails Trust to brief them on the project, as we connect to the trails in Opotiki.

Communication

Social Media

We created a Facebook and Instagram page for the purposes of info-sharing and engagement. The platforms are an opportunity for people to engage with the project, and contact the project team through Facebook and Instagram Messenger, as well as a monitored email address.

Engagement on social media started strong, with a Te Ara Tipuna post shared on Te Runanganui o Ngati Porou's Facebook page receiving 163 likes and shared 54 times. We use social media to share panui (notices) of community engagement hui, the posts are then shared to various community and private groups.

Both Instagram and Facebook pages are growing in followers and engagement.

Website

A website is being developed and will provide access to the full Te Ara Tipuna Proposal, images of the proposed tracks, the list of land blocks impacted, and consent documents.

There will be a Frequently Asked Questions section, using questions that have been asked throughout our engagement process.

There will also be a contact section to allow for people to get in touch directly.

Email

We have begun two email databases; one from those who attended the public hui, and one for landowners directly impacted.

The email database for those who attended the community engagement will be sent periodic updates as the project progresses.

The landowner database is steadily growing. Public access to landowner and trust details have been minimal for various reasons; outdated information, shares not succeeded to, postal addresses only. The database we have created has been obtained through mutual connections, or actively reaching out to people in person.

What next?

As part of the consent process we have opted for full notification to ensure that all who wish to be heard on this kaupapa can be.

TE ARA TIPUNA

Consultation and Engagement

Overview

131	58	20	1,297	844
Landowner & Community Meetings	Stakeholder Hui	Iwi & Hapu Hui	New website visitors	Social Media followers

Our Project Team's consultation and engagement began in 2021, with the first socialisation of Te Ara Tipuna with Te Runanganui o Ngati Porou. This has continued over the years since through several cycles of hui and engagements with landowners, iwi, hapu, communities, central and local government, schools, and interest groups between Gisborne and Opotiki.

We have established connections and relationships within Ngati Porou, Te Whanau a Apanui, Ngai Tai ki Torere and Whakatohea, at iwi, hapu and community levels.

We have continued to work with the three territorial authorities, Gisborne District Council, Opotiki District Council, and the Bay of Plenty Regional Council.

Building and maintaining strategic partnerships with central government, regional working groups and agencies has also remained a priority. We are still working alongside Te Puni Kōkiri – Ministry for Māori Development, the Māori Land Court and the Māori Trustee to support progress relating to Whenua Maori.

We have presented Te Ara Tipuna to various other groups such as the Raukumara Pae Maunga Board, Trust Tairawhiti, the Ngati Porou East Coast Principals Association, and Kanoa the Regional Economic Development & Investment Unit for MBIE, to name a few.

Finally, the development of a robust, responsive and engaging online communication plan has been central to supporting these in-person engagements. Our website, tearatipuna.nz launched June 10 and has proven to be a powerful tool in sharing our kaupapa.

Consultation & Engagement

Community consultations, hui with landowners and governance entities, iwi and hapu representatives, schools and kura

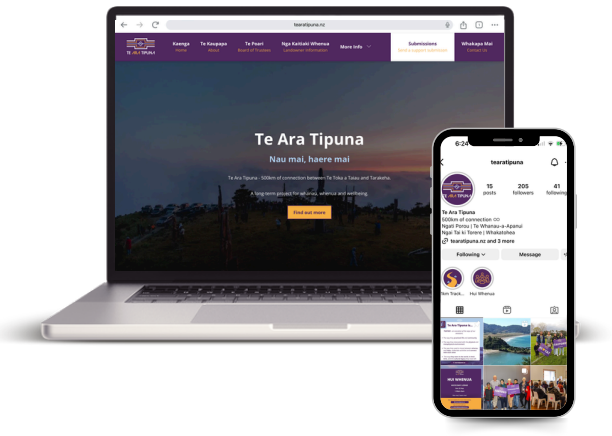
Community and whanau with our Te Ara Tipuna support signs

Communications

Our communications has become an integral part of engaging with all key groups, people and the general public.

Website

Our website is our one-true information source. It is the touch point that is referenced in all our communications and engagements. Our intention is to drive people to the website to seek any information they might want to know.



Our website - tearatipuna.nz and Instagram page

Social Media

Our social media pages, Facebook and Instagram, have steadily grown over time, with the expectation to grow even more rapidly as we roll out our 10-week Notification period plan.

1.2k unique website visitors
(since launch date June 10)

483 Facebook followers
339 Facebook page likes

361 Instagram followers

Support submissions

We have a set up a Weekly Support Dashboard of statistics that reflect support submissions and Agreement in Principles received, as well as website views and social media followers. This is circulated internally to our Project Team and Board of Trustees.

Our support submission form is on our website for those who wish to complete one.

Hon Hekia Parata, Project Lead & Trustee at Turanga FM Radio Station

Media

We've successfully conducted a round of interviews of each of our Trustees on Radio Ngati Porou, which can be accessed on our website.

These include Project Lead and Trustee, Hekia Parata, who carried out a live talk back session, and an livestreamed interview on Turanga FM.

Weekly Support Dashboard (internal)

Appendix 18:

Relevant Objectives and Policies

Tairawhiti Resource Management Plan

C3 Coastal Management

C3.7 Activities: Structures

C3.7.2 Objectives

1.Provision is made for appropriate structures in the CMA provided that any adverse effects on the environment arising from the erection, reconstruction, placement, alteration, extension, removal or demolition of a structure are avoided as far as practicable. Where complete avoidance is not practicable, the adverse effects are mitigated and provision made for remedying those effects, to the extent practicable.

2. Appropriate structures are located and built in such a way so as to provide for the preservation and, where appropriate, enhancement19F19F 16 of the natural character of the Gisborne Coastal Environment.

4. No reduction in the level and quality of access the public have to and along the Coastal Marine Area as a consequence of structures located in the Coastal Environment and, where appropriate, enhanced levels of access.

5. Management of any structures with cultural, spiritual or heritage value or structures located in sites or areas of cultural, spiritual or heritage value, in the Coastal Environment, which is consistent with the values of the guardians or kaitiaki of those values and appropriate given the principles of the Treaty of Waitangi.

9. A high level of safety associated with structures located in the Coastal Environment.

10. Maintained or enhanced levels of amenity value through allowing only appropriate development in the Coastal Environment.

C3.7.3 Policies

5. Council and consent authorities should make provision for new structures in the CMA where it can reasonably be demonstrated that such structures are:

a) Reasonably necessary to provide for the lawful exercise of any activity and no reasonably practicable alternative to the new structure in the CMA exists.

b) Any new structure is consistent with the objectives and policies of this Plan.

Provided that adverse effects on the environment arising from the new structure are, as far as practicable, avoided.

10. To maintain or enhance existing levels of public access to and along the coast or, where a specific reduction in public access is unavoidable, to avoid, remedy or mitigate the adverse effects of that reduction. To require all new structures, or consents for existing structures, in the CMA to provide for public access across them unless restriction is necessary:

15. To ensure that structures located within the Coastal Environment comply fully with provisions of the Building Act, 1991.

DC1.1 Significant Values Coastal Management Area

DC1.3 Objectives

1. The preservation of the natural character of the coastal environment and the protection of the coastal environment from inappropriate subdivision, use and development by protecting sites of significant ecological, cultural, historic, scientific, scenic and amenity value and sites where there is a high degree of natural character.

2. To allow for subdivision, use and development in Significant Values Coastal Management Areas where such subdivision, use and development does not have adverse effects on the values that contribute to the area's special values and natural character.

DC1.4 Policies

1. In the exercise of any function, power or duty under the Act, the Council and consent authorities will give priority to avoiding adverse effects on the values associated with an area1 within any Significant Values Coastal Management Area when considering the subdivision, use, development and protection of the Gisborne district's coastal environment.

DC2.1 General Coastal Management Area

DC2.3 Objectives

1. Appropriate and sustainable subdivision, use, development and protection of the coastal environment in the General Management Area.

Rural Zone

DD4.3 Objectives

DD4.3.1 All Rural zone Objectives

1. Enable subdivision, use and development in all rural zones provided that adverse environmental effects can be avoided, remedied or mitigated.

2. Maintain rural amenity values.

5. Locate structures and plant trees in such a manner as not to cause adverse environmental effects across property boundaries.

DD4.4 Policies

DD4.4.1 All Rural Zones Policies

1. When preparing plans or considering applications for plan changes, resource consents or designations in all rural zones regard shall be given to the following general policy as well as any specific policy relating to the zone:

a) effect of the activity on the natural landform characteristics;

b) effect on significant indigenous vegetation and significant habitats of indigenous fauna with particular references to C9 – Natural Heritage;

c) effect on biodiversity, water quality, land stability and erosion with reference to C9 – Natural Heritage and C7 – Land Management;

d) the location, scale and nature of the proposed activity and its effect on the balance of the land and on adjoining properties;

e) alternative methods and locations available to carry out the works or activities;

f) physical constraints to the site such as separation by rivers or roads, site configuration and layout;

g) any adverse effect that the activity may have on existing rural activities;

h) the shape, size and location of lots to be subdivided and any adverse effects they may have on amenity values;

i) whether covenants, buffer zones or separation distances between activities would assist in mitigating adverse environmental effects.

2. To manage the effects of land use in rural zones which may not be of a rural nature by ensuring that the amenity values of the rural environment and surrounding properties are maintained with particular regard to:

a) traffic generation whereby:

i. the level of traffic generated by the activity must be able to be accommodated without compromising the safety of traffic and residents on the district's roads;

ii. given the nature of adjacent roads that all entry, exit and manoeuvring of vehicles onto a public road can be conducted safety;

iii. adequate on-site manoeuvring areas are provided for all developments;

b) noise;

c) visual impact ensuring that:

i. to manage the effects of land use in rural zones which may not be of a rural nature the scale of the structure is appropriate for the use and the environment in which it is located;

ii. activities are of an appropriate scale and intensity for the area in which they are located;

iii. structures, areas and activities visible from public places are screened;

iv. the type of construction materials are not inappropriate to the environment in which

they are located.

Reserve Zone

DD5.3 Objectives

2. Development and use of reserve land that does not create adverse effects on the reserve or surrounding environment.

DD5.4 Policies

1. To enable community well-being by making reserve land available in order to maintain and enhance:

a) residential and district amenity

b) present and future recreation opportunity

c) public access

d) conservation and landscape values

e) and protect the environmental, cultural, visual and/or historical significance of reserves.

2. To ensure that the visual impact of reserve land and facilities maintains and enhances residential amenity and the natural value of the surrounding environment.

3. To avoid, remedy or mitigate the adverse effects of reserve structures on the open space character of the reserve.

4. To protect significant indigenous and exotic trees, areas of bush and other significant areas of indigenous vegetation, significant habitats of indigenous fauna, ecological value, natural character or significant landforms within reserves.

5. To maintain and enhance access to and along the margins of the district's rivers, lakes and coastline.

6. To ensure that recreational activities that use the river and coastal margins do not create adverse effects – such as diminished natural value or increased bank instability or inhibit access to the margins.

7. Particular attention should be given to the following matters when assessing applications for consents to conduct activities on reserves:

a) the existing character and amenity of the reserve and the locality in which the site is set

b) the location and design (including colour) of any proposed structure on the reserve itself

c) the effect of the proposed activity regarding daylight and shading on adjoining properties and the reserve itself

d) the effects of traffic flow to and from the reserve site and the locality in which the reserve

is set

e) access points onto the reserve

f) any historical, conservation, ecological, archaeological or waahi tapu values associated

with the reserve

g) design and location in terms of enabling people to provide for their safety either at the

reserve or on adjoining properties.

Neighbourhood Reserve zone: i. The Neighbourhood Reserve zone provides for those reserves generally of limited size which contribute to neighbourhood amenity and provide open space relief in the built environment. Passive recreation is provided for with an emphasis on children's play equipment, seating and landscaping. It will be necessary for Neighbourhood Reserve Management Plans to be developed to manage the activities provided for in this zone.

ii. The purpose of this zone is to maintain and enhance amenity in the residential environment.

Heritage Reserve zone: i. Provides for areas of reserve and open space which are intended to be retained primarily as open space with limited development. Included in this zone are areas of natural vegetation, natural ecosystems and important habitats.

ii. This zone also includes commonly identified land of cultural/spiritual significance to tangata whenua and sites of historical/archaeological importance (eg. Titirangi/Kaiti Hill).

iii. The purpose of this zone is to identify reserve and open space areas that require added protection because of the significance attached to individual sites.

Cemetery Reserves i. All activities to comply with the requirements of the Burial and Cremation Act 1964.

Road Reserves

C2.1.3 Objectives (Infrastructure)

1. Infrastructure that enables people and communities to provide for and enhance their environmental, social, cultural and economic well-being.

2. Infrastructure that is designed, located, constructed, operated and maintained to ensure:

- A safe and healthy environment.
- The efficient use of energy and resources.
- Adverse effects are avoided, remedied or mitigated.

C2.1.4 Policies

C2.1.4.1 Policies: (Network Utility Operations)

4. To enable network utility activities in the road reserve that have minor adverse environmental effects.

C3.14 Coastal Environment Overlay

C3.14.1 Objective

1. Protection of the quality of water, wetlands and aquatic habitats, and the preservation of the natural character associated with lakes, rivers, wetlands and their margins, and the Coastal Environment of the Gisborne District.

C3.14.2 Policies

1. To enable subdivision, use or development in the Coastal Environment which avoids adverse effects on natural heritage values as far as practicable. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations within the Coastal Environment:

b) Avoidance of the cumulative adverse effects of subdivision, use and development.

c) Proximity to existing subdivision, use and development.

d) Conformity with the nature and extent of existing subdivision, use and development.

e) Size, location and nature of the activity.

f) Effect of the activity on natural character, including the natural landform characteristics, natural vegetation cover and biodiversity.

g) Visual contrasts between the activity and the landscape.

h) The integrity of the natural character of the Coastal Environment and its tolerance to change.

i) Effect on amenity values

2. To manage the adverse effects of activities on the health and functioning of aquatic and terrestrial wetland ecosystems including habitat, flora and fauna for the purpose of preserving the natural character of wetlands and protecting them from inappropriate subdivision, use and development. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations:

a) Consideration of whether or not the wetland was purposely created as such.

b) Adverse effects associated with the timing, duration, area and location of the activity.

c) The adverse effects of activities that reduce or disturb vegetation and indigenous vegetation in particular, including any vegetation to be retained

d) Any adverse effects of activities on water quality and aquatic ecosystems.

e) Any adverse effects of activities on stream bank stability.

f) Any measures necessary or proposed to avoid, remedy or mitigate the adverse effects of activities on significant habitat of indigenous fauna, biodiversity, amenity, access and natural character values and the natural functioning of wetland ecosystems

C6 Freshwater provisions

C6.2.11 Policies for Fertilisers and Solid Discharges

6. When considering applications to discharge solid or fertiliser contaminants to land or water, assessment criteria are:

a) The nature of the materials to be discharged;

b) The potential for any long-term contamination or other long term or cumulative effects arising from the operation;

d) Any effects of leachate and stormwater on groundwater, surface water and coastal water and whether it is maintained within any relevant limits for the receiving waterbody, and whether those effects are consistent with achieving any relevant objectives for that waterbody;

e) Any actual or potential effects of any discharges on human health or amenity and on the health and functioning of plants, animals or ecosystems;

f) The mauri of the waterbody and any values placed on the site by tangata whenua;

g) The values identified in a catchment plan for the receiving waterbody and any other values identified in a schedule of this Plan;

i) Any adverse effect on values contained in areas of significant indigenous vegetation and significant habitats of indigenous fauna;

j) Any relevant industry codes of practice, the implementation of which would assist in the avoiding, remedying or mitigating of adverse effects on the environment;

k) The need to avoid exacerbation of any flooding risk; and

C6.3.1 Policies for Structures in the Beds of Rivers and Lakes

1. Structures within streams, rivers and lakes should be managed so that:

a) Sediment generation is minimised to support achieving freshwater objectives and limits.

b) Where possible work within Outstanding Waterbodies shall be avoided.

2. Improve fish passage in the region by:

a) Progressively improve fish passage in priority areas (identified by 2020)

b) Avoiding the creation of future barriers to native fish passage by requiring the use of appropriately designed, placed, installed and maintained structures including the use of culverts and bridges for permanent river crossings rather than permanently constructed fords.

c) Recognising that the best time to remove barriers is often at time of infrastructure renewal. Advisory Note: Since 1983, under the Freshwater Fisheries Regulations 1983, culverts, fords, dams and diversion structures that impede fish passage require approval from the Department of Conservation. This is a separate statutory process that applies in addition to the requirements of the Tairāwhiti Resource Management Plan.

3. Provide for new structures and activities in streams, rivers and lakes where:

a) Fish passage for migration, recruitment and habitat range is maintained and structures are established according to best practice;

b) Adverse effects on the significant habitats and migratory and breeding activities of native aquatic and terrestrial species and trout are minimised;

c) Where only native aquatic species are found and not trout, fish passage should be designed to only allow the passage of native aquatic species;

d) They will not hinder the recharge of groundwater aquifers;

e) Impacts on water quality and flow are managed within the objectives and limits/targets set for the waterbody;

f) There is no reduction in flood carrying capacity, increased flood levels, adversely altered floating debris carrying ability of the stream or river, or adverse alteration to rates of aggradation or bank erosion;

g) There is no damage to heritage items, waahi tapu, taonga and areas of cultural significance;

h) There is no reduction in value of the waterbody for activities such as kohinga kai harvesting or recreational use, including the protection of public access and impacts on natural character and amenity values;

i) There is a functional need for the structure to be located in a bed of a lake, river or stream;

j) The new structure is the most practical alternative;

k) Adverse effects on the known habitats of threatened or at risk species are avoided;

l) The health of waterbodies affected by the proposed activity is maintained or improved

C6.4 Riparian Margins, Wetlands

C6.4.1 Policies for Activities in and adjacent to Wetlands

1. Protect the significant values of wetlands and their margins, including the significant values of small wetlands, from the inappropriate effects of land and water use.

2. Promote the restoration of degraded wetlands through the development of wetland management plans as described in Appendix H26 and the creation of constructed wetlands in appropriate locations.

3. Encourage landowners and the community to maintain or enhance the values of existing wetlands, including but not limited to their values:

a) As habitat for indigenous flora and fauna;

b) For their significance to mana whenua;

c) For their role in the hydrological cycle including flood protection;

d) For nutrient attenuation; e) As a fisheries resource;

f) For recreation;

g) For education and scientific research; and

h) For their amenity and natural character. Promote wetland management plans as outlined in Appendix H26 as a tool for guiding the maintenance and enhancement of wetlands.

4. Avoid activities, including earthworks, vegetation clearance, diversion, drainage and stock access that could impact on the values of Regionally Significant Wetlands and only permit activities in other wetlands where their significant values can be protected or enhanced.

5. Reduce the level of stock access to wetlands so the cattle are progressively excluded and the access of other stock is reduced stocking rates that avoid evident damage.

6. When assessing resource consents for activities within wetlands and their margins have regard to the following matters:

a) The practicality of avoiding the natural wetland, including alternative locations or methods for the activity;

b) The ecological significance of the wetland, and the actual and potential for adverse effects on the significant values of the wetland;

c) Any Biodiversity Offsets of ecologically significant residual adverse effects through the enhancement, restoration, or creation of wetland area;

(ca) Any proposed environmental compensation or other measures that will result in positive effects on wetland values;

d) The magnitude and proportion of reduction in area of the wetland;

e) The amenity values of the wetland – including, recreational, and aesthetic values;

f) The cultural values of the wetland;

g) The degree to which the wetland provides for the continued functioning of ecological and physical processes;

h) The timing of activities in accordance with Schedule G16;

i) The presence of 'threatened' or 'at-risk' species;

j) Effects on ecosystem services provided by the wetland such as maintaining water quality;

k) Whether the activity will achieve Policy C9.3.1.2 and C9.3.1.4; and

l) Whether the activity is consistent with any wetland management plan approved in accordance with Appendix H26. Activities in and adjacent to natural wetlands should be managed to maintain or enhance their significant values.

C6.4.4 Policies for Riparian Areas

1. To maintain and enhance the vegetation, along the riparian management areas of the region's lakes, rivers and streams with encouragement given to indigenous planting and to promote the retirement and planting of riparian management areas where appropriate.

2. The establishment of indigenous vegetation in riparian management areas will be promoted and encouraged where this will:

a) Protect and enhance the values of outstanding waterbodies identified in Schedule G18;

b) Protect the banks from erosion and adverse effects of flooding;

c) Protect and enhance the aquatic ecosystems and habitat for flora and fauna, with particular focus on areas identified in Schedules G15, G17, and G18;

d) Retire areas identified as protected watercourses (Schedule G21)as part of vegetation clearance resource consents;

e) Protect and enhance indigenous biodiversity;

f) Protect or enhance the hydrological regime of the river, including its hydraulic power and energy regime;

g) Protect or enhance the efficiency of river channels;

h) Protect structures in the beds of lakes and rivers.

C7 Land Management

C7.1.3 Objectives

1. Land uses and management practices that avoid, remedy or mitigate adverse effects on the environment including adverse effects on aquatic and wetland ecosystems, biodiversity and physical resources.

C7.1.4 Policies

2. To ensure that, when land disturbance or vegetation clearance operations take place in environments susceptible to erosion, measures to achieve soil conservation and the avoidance, remediation or mitigation of adverse effects will be taken into account.

3. Regard to the following will be had when preparing plans or considering applications for plan changes or consents:

a) the sustainable management of the land resource;

b) the effects of the activity on erosion and soil conservation;

c) the effects of the activity on the establishment or maintenance of ETC on LO3A land;

d) the effects of the activity on the receiving environment and waterbodies;

e) the effects of the activity on the aquatic environment;

f) the potential of the activity to erode physical resources.

C8 Natural Hazards

C8.1.3 General Objectives

1. A pattern of human settlement that:

a) provides a high level of personal safety from natural hazards for its inhabitants;

b) avoids or mitigates the risk to property and infrastructure from natural hazards; and

c) does not accelerate or worsen the adverse effects of natural hazards upon the natural and physical environment.

2. A community informed of the potential natural hazards of the District.

3. The protection of natural features that could lessen the impact of natural hazards**.**

C8.1.4 General Policy

2. In all hazard prone areas, any new subdivision, use and development should avoid or minimise any risk of loss of life or injury or other environmental damage due to natural hazard.

4. Patterns of human settlement, development and activities should not induce or accelerate the risk of natural hazards. When assessing an application for a resource consent the effects of that application on any hazard risk shall be considered. This includes but is not limited to the following:

a) the likelihood and effect of unrestrained material escaping and increasing potential hazard damage;

b) any diversion of overland flows of floodwaters or stormwater;

c) the safety of any occupants of buildings and evacuation procedures;

d) potential flood conditions, including silt deposition, at the site;

e) site topography and location of the building;

f) likelihood of increased erosion elsewhere;

g) stormwater collection and disposal systems should be designed to mitigate any adverse effects on the stormwater system or avoid an increase in the risk or severity of flooding or land instability;

h) other measures in place to reduce the potential effects of the proposed buildings or site development on the movement of floodwater;

i) extent to which natural buffers exist and are adversely affected

8. In carrying out hazard assessments or considering resource consent applications the possibility and implications of climate change are to be recognised. In particular the likelihood of the following matters should be considered:

a) a change in sea level;

b) altering of coastal processes;

c) increased inundation of low lying estuarine areas;

d) higher local temperatures; e) changes in rainfall patterns;

f) increase in cyclonic storms. 9. The integrity of natural systems and features that provide a defence against natural hazards should be recognised and protected.

These include:

a) the capacity of foredunes to act as natural protection against inundation and erosion;

b) wetlands;

c) margins of estuaries

C8.5.3 Coastal Hazard Objectives – Regional Plan and Regional Coastal Plan

2. New subdivision, use, and development and human settlement patterns in the Coastal Environment which:

a) Maximise personal safety from natural hazards.

b) Ensures that property and community infrastructure is less at risk of loss or damage from natural hazards.

c) Does not accelerate or worsen or cause transfer of adverse effects of natural hazards on the environment.

d) Preserves the natural character of the Coastal Environment and protects the amenity values and quality of the Coastal Environment from any adverse effect arising from activities undertaken in response to natural hazards.

5. Natural features, such as dune systems and estuaries, and physical processes are maintained or enhanced in order to maintain natural buffers against natural hazards which occur in the Coastal Environment

8. When considering an application for a resource consent, the Council or Consent Authorities shall require a developer to undertake either a Coastal Hazard Overlay or ASCH assessment in areas where no ASCH assessment has been made but subdivision, use, or development is proposed.

9. Where subdivision, use, and development is proposed within an ASCH, Council may require the developer to have a full Coastal Hazard Overlay assessment prepared as part of any information requirement or environmental assessment for a resource consent application

20. Council and consent authorities shall discourage new development in areas that are known to be at high risk from coastal hazards within the Coastal Environment unless either:

a) The development is necessary for the operation of regionally important infrastructure such as Port Gisborne, and

b) There is no practical alternative; or

c) The proposed development will not be significantly affected by coastal hazards or affect natural features that act as buffers against natural hazards.

And in the case of (b) and (c) above:

I The development is unlikely to lead to a demand for protection works.

Ii In the event of a hazard occurring, any resulting damage will not result in significant adverse effects on the environment including the safety of the general public.

C8.5.5 Coastal Hazard Policies – Regional Plan and District Plan

1. Where subdivision use and development are proposed in an area identified as an Area Sensitive to Coastal Hazard (ASCH), the Council shall take into account the nature of the coastal hazards identified and the interaction with the type of use or development; including any subsequent use or development permitted as a result of the resource consent application or designation requirement. In exercising its powers on any subdivision consent, resource consent or building consent the Council shall take into account the information contained in the ASCH database. It may require further more detailed information, including the preparation of full Coastal Hazard Assessments as described in the Regional Coastal Environment Plan. It may require the effects of the hazard to be avoided, remedied or mitigated or decline the application.

C9.1.3 Objectives- Natural Heritage

1. The maintenance and, where appropriate, enhancement of the abundance, distribution range and diversity of the Gisborne district's indigenous flora and fauna.

2. Protection of areas of significant indigenous vegetation, significant habitats and outstanding natural features and landscapes.

3. Protection of the quality of water, wetlands and aquatic habitats, and the preservation of the natural character associated with lakes, rivers, wetlands and their margins.

C9.1.4 Policies

1. To provide for protection management of areas of significant indigenous vegetation and significant habitats of indigenous fauna; particularly those poorly represented within ecological districts and those that are rare or threatened[1] Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations that may affect Protection Management Areas:

a) the location of the area; in particular, where associated with dunelands, estuaries or freshwater wetlands; or where part of a succession of natural habitats;

b) the size and shape, to encourage the creation of large Protection Management Areas where appropriate;

c) the extent and composition of indigenous vegetation, the naturalness, diversity and any pattern within the area, recognising the ecosystems located across a succession of natural habitats (such as riparian areas, foreshores, soil gradients and coast-to-mountain forest sequences), or in areas which experience occasional stress events (such as seasonal wetlands, slip faces, exposed headlands) are likely to be more diverse than elsewhere;

d) the presence of threatened indigenous species or species unique to the district, and the importance of breeding, feeding, roosting or loafing areas used by threatened indigenous fauna on a regular or annual basis;

e) the long term viability of the area, including the level of disturbance within the area, pest impact, or threats, existing or proposed protection measures with particular regard to covenants or other mechanisms which ensure the long term protection of natural values including significant indigenous vegetation or habitat.

f) the use of buffering (preferably indigenous) within the Protection Management Area boundary in the establishment of Protection Management Areas;

g) the rarity, distinctiveness or representativeness of the site in regard to its vegetation, soil type and landform combination in national, regional and local ecological contexts. Particular regard should be had to ensuring that provision is made for the protection of ecosystems that are under-represented

[1] "threatened" means plant or animal species identified as threatened in any of the following three publications: UCN 1996. Rec List of Threatened Animals, IUCN, Gland, Switzerland. Molloy, J. and A. Davis for Department of Conservation (2nd ed. Collated by C. Tisdall), 1994 Setting Priorities for the Conservation of New Zealand's Threatened Plants and Animals, Department of Conservation, Wellington. Cameron, ED, DeLange PJ, Given, PN and Ogle, CC – 1995. New Zealand Botanical Society Threatened and Local Plant Lists (1995 revision). NZ Botanical Society Newsletter 39: 15-28.

at a local (ecological district) level from the adverse effects of inappropriate subdivision, use and development; and

h) the condition of the site compared to others in the district, with particular consideration to the protection of advanced primary and secondary indigenous forest species on Rural Productive Zone land;

i) the extent to which the site makes up part of an ecological corridor.

2. To protect, through the maintenance or enhancement of, the biodiversity of indigenous flora and fauna throughout the Gisborne district. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations affecting natural heritage values not specifically provided for in Natural Heritage Overlays:

a) the location of the area, particularly where associated with natural heritage values specifically considered in Policy C9.1.4(1) (such as ecological corridors); and

b) the extent and composition of indigenous vegetation; the naturalness, diversity and any pattern within the area, recognising that ecosystems located across a succession of natural habitats (such as riparian areas, foreshores, soil gradients and coast-to-mountain forest sequences), or in areas which experience occasional stress events (such as seasonal wetlands slip faces, exposed headlands) are likely to be more diverse than elsewhere; and

c) the presence of threatened indigenous species or species endemic to the district; and

d) the importance of breeding, feeding, roosting or loafing areas used by threatened indigenous fauna on a regular or annual basis; and

e) rarity, distinctiveness or representativeness of the site in regard to its fauna, vegetation, soil type and landform combination, in national, regional and local ecological contexts. Particular regard should be had to ensuring that provision is made for the protection of ecosystems that are under-represented at a local (ecological district) level from the adverse effects of inappropriate subdivision, use and development, with particular consideration given to the protection of primary and advanced secondary indigenous forest species on Rural Productive Zone land: and

f) the condition and long term viability of the area, including the level of disturbance within the site, pest impact, threats, existing or proposed protection measures, with particular regard to covenants or other mechanisms which ensure the long term protection of natural values including significant indigenous vegetation or habitat; and

g) encouraging the restoration and rehabilitation of degraded land through revegetation, using genetically suitable indigenous flora where appropriate, having regard when undertaking such planting to the habitat requirements of indigenous fauna, and giving priority to the rehabilitation of indigenous habitats found on class LUC class I, II and III land; and

h) the protection for buffer areas (preferably indigenous) to mitigate adverse effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna.

3. To avoid, remedy or mitigate the adverse effects of activities on riparian areas and aquatic ecosystems including aquatic habitat, flora and fauna. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations affecting areas within the Riparian Management Area:

a) the adverse effects of activities that reduce or disturb riparian vegetation and indigenous riparian vegetation in particular; and

b) assessing options for the management of the entire catchment before targeting land use controls or management devices to any shingle water body; and

c) encouraging the management of the margins of lakes, rivers and wetlands to provide for the health of aquatic ecosystems including habitat, flora and fauna and for amenity, access, terrestrial habitat and natural character values and for the natural functioning of riparian ecosystems; and

d) avoiding, remedying or mitigating the adverse in-stream effects of activities that accelerate soil, water or nutrient run-off from land, increase directly or indirectly in-stream water temperatures, decrease levels of dissolved oxygen, or increase the concentration of toxic chemicals within waterbodies; and

e) encouraging the establishment of tall woody vegetation with an extensive strong root network, on unstable land near waterways as soon as is practicable where no indigenous vegetation already exists.

4. To avoid, remedy or mitigate the adverse effects of activities on areas of outstanding landscape. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations within Outstanding Landscape Areas:

a) effect of the activity on the natural landform characteristics;

b) visual contrasts between the activity and the landscape;

c) effect of the activity on the skyline or prominent ridge;

d) effect of the activity on the natural vegetation cover;

e) existing protection mechanisms;

f) recognition that in order to achieve sustainable management given the technical and physical constraints which may be experienced by network utility operations including those associated with their scale, location, design and operation, a compromise of the natural and physical environment may occur.

5. To avoid, remedy or mitigate the effects of inappropriate subdivision, use and development on prominent ridges of the Coastal Environment or prominent ridges of the Gisborne urban area. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations within the Coastal Environment:

a) the integrity of the landscape and its tolerance to change;

b) effect of the activity on the natural landform characteristics;

c) visual contrasts between the activity and the landscape;

d) effect of the activity on the skyline or prominent ridge;

e) effect of the activity on the natural vegetation cover;

f) recognition that in order to achieve sustainable management given the technical and physical constraints which may be experienced by network utility operations including those associated with

their scale, location, design and operation, a compromise of the natural and physical environment may occur

6. To manage the adverse effects of activities on the health and functioning of aquatic and terrestrial ecosystems including habitat, flora and fauna for the purpose of preserving the natural character of wetlands and protecting them from inappropriate subdivision, use and development. Regard to the following will be had when preparing plans or considering applications for plan changes, resource consents or designations:

a) consideration of whether or not the wetland was purposely created as such.

b) adverse effects associated with the timing, duration, area and location of the activity.

c) the adverse effects of activities that reduce or disturb vegetation and indigenous vegetation in particular, including any vegetation to be retained.

d) any adverse effects of activities on water quality and aquatic ecosystems.

e) any adverse effects of activities on stream bank stability.

f) any measures necessary or proposed to avoid, remedy or mitigate the adverse effects of activities on significant habitat of indigenous fauna, biodiversity, amenity, access and natural character values and the natural functioning of wetland ecosystems.

7. To consider negotiating an agreement with landowners to provide public access to significant natural heritage areas. The creation of an access may be appropriate where land being subdivided includes, adjoins or can provide enhanced public access to a:

a) strategically important water body

b) significant heritage feature

c) protected area compatible with public access

d) significant wetland.

C11.1.3 Objectives Signage

1. Effective signage which does not compromise the safety and efficiency of the road transport network.

2. Signage that maintains or enhances the amenity values and heritage values of the environment in which such signage is located.

C11.1.4 Policies

1. Manage the design, content and location of signage to ensure that signs do not either singularly or cumulatively restrict drivers' visibility, cause distraction, obstruct the pedestrian or vehicular traffic flows or adversely affect public safety.

3. Ensure that signs are maintained and designed in a professional manner.

4. Ensure that signage will not adversely affect amenity values, natural heritage values and cultural heritage values of the area in which it is located, specifically:

Residential and Reserve Zones

a) The intensity and scale of signage in residential zones should be limited so as not to detract from the domestic quality of the environment. Signs associated with non-residential activities in Residential zones should not detract from residential character

Rural Zones

a) Signage in areas with natural heritage values, cultural heritage values or scenic significance should be limited and shall be of a scale, intensity and design that respects the values of the environment.
b) The intensity and scale of signs should not detract from rural character.

Opotiki District Plan

Chapter 8- Rural Zone

8.2.1 OBJECTIVE

A rural environment that contributes to the economic and social wellbeing of the District and region through a range of rural activities and other lawfully established activities, where the effects of subdivision, use and development are managed to maintain the rural character of the zone and to prevent reverse sensitivity effects from compromising rural production activities and the operation of infrastructure.

Policies

8.2.1.2 Manage subdivision and development to maintain the rural character of the zone and the District's natural and physical resources.

8.2.1.3 Ensure the maintenance and enhancement of visual open space and vegetated character of the rural environment.

8.2.1.4 Maintain the rural character and amenity values associated with the low density rural environment.

8.2.4 OBJECTIVE

Recognise the special relationship tangata whenua have with their ancestral land

Policies

8.2.4.1 To recognise and provide for the cultural, spiritual and archaeological values of tangata whenua and the desire of tangata whenua to live on and develop their ancestral lands and to protect the natural environment of their ancestral lands.

Chapter 9- Coastal Zone

OBJECTIVE 9.2.1 Retain and, where appropriate, restore the distinctive natural character within the Coastal Zone.

POLICIES

9.2.1.1 Require setback for structures and buildings from the coast where practicable to ensure maintenance of the coastal ecosystem and the natural character of the coastline and to enable esplanade reserves, or esplanade strips to be set aside for the future.

9.2.1.2 Ensure that the subdivision, use and development of land within the Coastal Zone avoids as far as practicable significant adverse effects on natural character and where these cannot be avoided, be remedied or mitigated.

OBJECTIVE 9.2.2 The adverse effects of inappropriate subdivision, use and development on the natural character of the Coastal Zone are avoided or are remedied or mitigated, including by providing for development in areas better able to absorb the effects of the development than other areas of the coast.

9.2.2.5 Manage the effects of subdivision, use and development on the natural character of the Coastal Zone through avoiding inappropriate development outside existing settlements, as far as practicable, or remedying or mitigating adverse effects, while recognising that some activities, due to functional, operational or technical requirements, need to locate in the Coastal Zone

OBJECTIVE 9.2.3 To recognise and provide for tangata whenua relationships with the Coastal Zone.

Policies

9.2.3.1 Where activities in the zone affect the relationship tangata whenua have with their cultural sites and traditions, activities are to avoid, remedy or mitigate adverse effects.

9.2.3.2 To take into account hapū and Iwi resource environment management plans.

9.2.3.3 To recognise only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

9.2.3.4 The outcomes of consultation with tangata whenua will be taken into account when assessing resource consent applications affecting the Coastal Zone to show how the relationships of Maori and their culture and traditions with their ancestral taonga are recognised and provided for.

9.2.3.5 To recognise and provide for the cultural, spiritual and archaeological values of tangata whenua and the desire of tangata whenua to live on and develop their ancestral lands.

Chapter 10- Coastal Settlement Zone

OBJECTIVE 10.2.1 Planned and cohesive development of coastal settlement areas where inappropriate subdivision, use and development is avoided and the natural character is preserved.

Policies

10.2.1.6 Require setback for structures and buildings from the coast to preserve the natural character of the coastal environment wherever possible, except where there is a functional requirement to locate in the zone.

OBJECTIVE 10.2.2 Recognise and provide for the special relationship tangata whenua have with their ancestral lands.

Policies

10.2.2.1 Where activities in the zone affect the relationship tangata whenua have with their cultural sites and traditions, activities are to avoid, remedy or mitigate adverse effects.

10.2.2.2 To recognise only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

10.2.2.3 To recognise tangata whenua needs for Papakāinga housing, marae and associated developments.

10.2.2.4 To recognise and provide for the cultural, spiritual and archaeological values of tangata whenua and the desire of tangata whenua to live on and develop their ancestral lands.

10.2.2.5 To recognise the special relationship of Māori with their ancestral land by enabling use and development of land, including Papakāinga and associated support facilities.

Chapter 12 Surface of Water Activities

12.2.1 OBJECTIVE Enabling a wide range of activities on rivers where safety and access and conflicts between activity groups can be managed.

12.2.1.2 Ensure that access is provided in appropriate locations to avoid damage to the margins of water bodies.

12.2.2 OBJECTIVE Surface of water activities maintain or, where appropriate, enhance the natural character, amenity, recreational, ecological, historic heritage and cultural values of water bodies and their margins.

POLICIES

12.2.2.1 Manage the scale and effects of surface of water activities to ensure that natural character and the recreational and ecological values of the water body and its margins are maintained and, where appropriate, enhanced.

12.2.2.2 Surface of water activities should not degrade the mauri of water bodies and cultural values nor adversely affect historic heritage values.

Chapter 13- Earthworks, Landscapes, Indigenous Vegetation and Habitats

13.2.1 OBJECTIVE - OUTSTANDING NATURAL FEATURES AND LANDSCAPES

To protect outstanding natural features and landscapes from the adverse effects of inappropriate subdivision, use and development.

POLICIES

13.2.1.1 Adverse effects of inappropriate subdivision, use and development, including buildings, structures and earthworks, on the values of outstanding natural landscapes are avoided in the Coastal Environment.

13.2.1.2 Outside the Coastal Environment adverse effects of inappropriate subdivision, use and development, including buildings, structures and earthworks, on the values of outstanding natural features and landscapes are avoided and, where avoidance is not practicable, remedied or mitigated.

13.2.2 OBJECTIVE – INDIGENOUS VEGETATION AND HABITATS

The sustainable management of indigenous vegetation and habitats of indigenous fauna to maintain and, where appropriate, enhance biodiversity of the District. This includes maintaining the overall extent of rare and threatened ecosystem types.

POLICIES

13.2.2.1 To avoid adverse effects of activities on indigenous biological diversity in the Coastal Environment that is identified under Policy 11(a) of the New Zealand Coastal Policy Statement.

13.2.2.2 To protect significant indigenous vegetation and significant habitats of indigenous fauna, where significance is assessed in accordance with the criteria in Appendix 13.9.3

13.2.2.3 To encourage the restoration and rehabilitation of degraded indigenous vegetation through plant and animal pest control and revegetation, using genetically suitable indigenous flora where appropriate and considering the habitat requirements of indigenous fauna.

13.2.2.4 To encourage the protection, restoration and management of ecosystems that are rare and threatened at a local (ecological district), regional or national level.

13.2.2.5 Outside the Coastal Environment:

(a) avoid, or where this is not practicable, remedy, mitigate or offset the adverse effects of activities on indigenous biodiversity;

(b) protect indigenous ecosystems, rare, at risk, or threatened species;

(c) maintain the overall extent of rare and threatened ecosystem types;

(d) require restoration and rehabilitation of significant indigenous vegetation and habitats of indigenous fauna on or off the site, giving priority to the habitats and ecosystem types listed in 13.9.4 and by reference to the criteria in Appendix 13.9.3.

13.2.2.7 To promote the restoration of ecosystems that have been damaged or degraded to ensure their continued viability.

13.2.2.9 To encourage the restoration and enhancement of riparian margins to support indigenous flora and fauna habitats.

13.2.3 OBJECTIVE – WETLANDS

Wetlands within the District continue to support indigenous flora and fauna habitats as part of a wider ecological system and the natural character of the wetlands is maintained and enhanced.

POLICIES

13.2.3.1 To protect the natural character and habitat values of wetlands, including maintaining their extent and ability to sustain indigenous species.

13.2.3.2 To avoid adverse effects on wetlands and encourage opportunities for restoration and rehabilitation including but not limited to conditions on resource consents requiring restoration or rehabilitation of wetlands on or off the site.

13.2.3.3 To maintain and enhance the overall extent of wetlands through controlling inappropriate activities and promoting best land use practice.

13.2.3.4 To encourage the restoration and rehabilitation of wetlands.

13.2.4 OBJECTIVE – NATURAL CHARACTER

Coastal and estuarine margins, wetlands and riparian areas within the District continue to support indigenous flora and fauna as part of a wider ecological system and their natural character is maintained and enhanced.

POLICIES

13.2.4.1 Preserve the natural character of the Coastal Environment and protect it from inappropriate subdivision, use and development.

13.2.4.2 Preserve indigenous riparian vegetation areas and coastal and estuarine margins within the District for their natural character, ecological, biodiversity, historical and cultural character and value.

Chapter 14 Heritage

14.2.2 OBJECTIVE To recognise and provide for sites of cultural significance identified in Iwi and hapū resource management plans.

POLICIES

14.2.2.1 Recognise that Iwi and Hapū have sites of special importance that they may not wish to publicly disclose and ensure that these sites are treated and protected in accordance with Iwi and Hapū wishes.

14.2.2.3 Ensure subdivision use and development does not depreciate the relationship tangata whenua has with its taonga. 1

4.2.2.4 Recognise that only tangata whenua can identify and evidentially substantiate their relationship and that of their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

14.2.4 OBJECTIVE To recognise and protect the heritage values of waahi tapu sites and areas.

POLICY

14.2.4.1 Protect waahi tapu sites and areas listed in Appendix 14.10.2 from inappropriate activities including building or excavation in or on the site.

Chapter 18 Natural Hazards

OBJECTIVE 18.2.1 Ensuring that the effects of natural hazard occurrence within the District are avoided or mitigated when making resource management decisions.

POLICIES

18.2.1.1 Control activities and the location of buildings to avoid or mitigate the effects of natural hazards.

18.2.1.2 Require detailed site investigations prior to subdivision, use or development of land subject to or likely to be subject to natural hazards.

18.2.1.3 Apply conditions on subdivision and resource consents to mitigate adverse effects of natural hazards from the use and development of land.

OBJECTIVE 18.2.2 Encourage the use of sustainable land management practices that assist in avoiding and mitigating the effects of natural hazards on the land and coastal environment.

18.2.2.2 Locate and design subdivision, land use and development so that the need for hazard protection works is avoided.

Chapter 19 Coastal Environment Overlay

19.2.1 OBJECTIVE Preserve and restore the natural character of the Ōpōtiki Coastal Environment and protect it from inappropriate subdivision, use and development.

POLICIES

19.2.1.1 Ensure subdivision, use and development avoids adverse effects on the values and attributes of the areas of outstanding natural character in the Coastal Environment including those identified in Appendix I and Appendix J of the Bay of Plenty Regional Policy Statement. 1

9.2.1.2 Ensure subdivision, use and development avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on the attributes of areas of natural character in the Coastal Environment.

19.2.1.3 Require setbacks for structures and buildings from MHWS to protect natural character.

19.2.1.5 Manage subdivision, use and development to ensure that it is planned and appropriate and preserves the natural character of the Coastal Environment.

19.2.1.6 Avoid adverse effects of earthworks and indigenous vegetation clearance on the areas of outstanding natural character of the Coastal Environment.

19.2.2 OBJECTIVE Protect natural features and natural landscapes from the adverse effects of inappropriate subdivision, use and development.

POLICIES

19.2.2.1 Avoid adverse effects of inappropriate subdivision, use and development, including buildings, structures and earthworks and indigenous vegetation clearance on the values of outstanding natural features and landscapes in the Coastal Environment.

19.2.2.2 Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of inappropriate subdivision, use and development, including buildings, structures and earthworks and indigenous vegetation clearance, on the values of natural features and landscapes in the Coastal Environment

19.2.2.3 Require setbacks for structures and buildings from MHWS to protect the landscape values of the Coastal Environment

19.2.3 OBJECTIVE Recognise the special relationship tangata whenua have with their ancestral lands and their role as kaitiaki.

POLICIES

19.2.3.1 To recognise and provide for the cultural, spiritual and archaeological values of tangata whenua and the desire of tangata whenua to live on and develop their ancestral lands.

19.2.5 OBJECTIVE Protect indigenous biological diversity in the Coastal Environment.

POLICIES

19.2.5.1 Avoid adverse effects of activities on indigenous biological diversity that is identified under Policy 11(a) of the New Zealand Coastal Policy Statement.

19.2.5.2 Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects on indigenous biological diversity that is identified by Policy 11(b) of the New Zealand Coastal Policy Statement that is not protected under Policy 19.2.5.1.

19.2.5.4 Encourage opportunities for restoration of indigenous habitats and ecosystems, including through resource consent conditions.

Bay of Plenty- Natural Resources Plan

Land Disturbance -riparian zone (stream crossing- schedule 1) coastal areas

KT O4 (Objective 4) The water, land and geothermal concerns of tangata whenua are taken into account and addressed as part of resource management processes, while recognising that different iwi and hapu may have different concerns or practices.

KT O5 (Objective 5) Water, land and geothermal resource management decisions have regard to iwi resource management planning documents.

LM O1 (Objective 9) Land use and land management practices are appropriate to the environmental characteristics and limitations of the site, and avoid, remedy or mitigate adverse effects on the life-supporting capacity of soil resources, the receiving environment and heritage values.

LM O2 (Objective 17) Riparian margins are appropriately managed to protect and enhance their soil conservation, water quality and heritage values.

LM O3 (Objective 19) Protect vulnerable areas from erosion.

LM O5 (Objective 21) Maintain and improve the protective function of coastal sand dunes.

DW O9 (Objective 31) Improvement, where necessary, to the quality of stormwater discharged to the environment.

DW O10 (Objective 32) Erosion and scour caused or exacerbated by stormwater discharges is avoided, remedied or mitigated.

DW O12 (Objective 34) Streams and rivers are not used as treatment systems for contaminated stormwater.

DW P15 (Policy 51) To require the appropriate management of stormwater quality, including:

(a) The use of source controls to avoid the contamination of stormwater.

(b) The use of best practicable options.

(c) Treatment of stormwater to prevent the contamination of receiving environments.

Regional Coastal Plan- Bay of Plenty

2.2 Natural Heritage

Objective 2 Protect the attributes and values of:

(a) Outstanding natural features and landscapes of the coastal environment; and

(b) Areas of high, very high and outstanding natural character in the coastal environment; from inappropriate subdivision, use, and development, and restore or rehabilitate the natural character of the coastal environment where appropriate.

Objective 3 Safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems by:

(a) Protecting Indigenous Biological Diversity Areas A,

(b) Maintaining Indigenous Biological Diversity Areas B;

(c) Promoting the maintenance of indigenous biodiversity in general; and

(d) Enhancing or restoring indigenous biodiversity where appropriate.

2.1.1 **Appropriate use and development**

Policy NH 1 In relation to the natural heritage of the coastal environment, activities may be considered appropriate if they contribute to the restoration and rehabilitation of natural heritage or cultural values associated with natural heritage (including kaimoana resources and cultural landscape features) or if:

1 (a) They

(c) Have a functional need to be located in or near the coastal environment in general, or in or near a specific part of the coastal environment and no reasonably practicable alternative locations exist; and

(d) Are of an appropriate form, scale and design to be compatible with the existing landforms, geological features and vegetation or will only have temporary and short-term effects on such features; and

(e) Will not, by themselves or in combination with effects of other activities, have significant adverse effects on the natural processes or ecological functioning of the coastal marine area;

Policy NH 5 Adverse effects must be avoided on the values and attributes of the following areas:

(a) Outstanding Natural Character areas (as identified in Appendix I to the RPS);
(b) Outstanding Natural Features and Landscapes (as identified in Schedule 3);
(c) Any Indigenous Biological Diversity Area A (as identified in Schedule 2, Table 1); and
Adverse effects must be avoided on taxa that meet the criteria listed in Policy 11(a)(i) or (ii) of the NZCPS.

Policy NH 6 When assessing the extent and consequence of any adverse effects on the values and attributes of the areas listed in Policy NH 5 and identified in Schedules 2 and 3 to this Plan and Appendix I to the RPS:

(a)Recognise the existing activities that were occurring at the time that an area was assessed as having Outstanding Natural Character, being an Outstanding Natural Feature and Landscape or an Indigenous Biological Diversity Area A;

(b)Recognise that a minor or transitory effect may not be an unacceptable adverse effect;

(c) Recognise the potential for cumulative effects that are more than minor;

(d) Have regard to any restoration and enhancement of the affected attributes and values, and

(e) Have regard to the effects on the tangata whenua cultural and spiritual values of ONFLs, working, as far as practicable, in accordance with tikanga Māori.

Policy NH7 Consider providing for subdivision, use and development proposals that will adversely affect the values and attributes associated with the areas listed in Policy NH 5 where:

(b) The proposal

(vii) Provides for public walking, cycling or boating access to and along the coastal marine area in a manner that maintains or enhances the values and attributes associated with the areas listed in Policy NH 5.

Policy NH 8 Significant adverse effects must be avoided, and other adverse effects avoided, remedied or mitigated, on the values and attributes of:

(a) Any Indigenous Biological Diversity Area B (as identified in Schedule 2, Table 2); and

(b) Natural features and natural landscapes (including seascapes) in the coastal environment that are not listed as outstanding in Schedule 3.

Policy NH 9 Significant adverse effects on natural character in areas that are not identified as outstanding in Appendix I to the RPS are to be avoided, and other adverse effects avoided remedied or mitigated

Appendix 19

Draft Conditions

Te Ara Tipuna

DRAFT Conditions

V3 – November 2024

ABBREVIATIONS AND DEFINITIONS

Acronym/Term	Definition
Completion of Construction	When construction of the Project (or part of the Project) is complete and it is available for use.
BOPRC	Bay of Plenty Regional Council
GDC	Gisborne District Council
ODC	Opotiki District Council
CTMP	Construction Traffic Management Plan
Consent Holder	Te Ara Tipuna Charitable Trust
Construction Works	Activities undertaken for the purpose of constructing the Project
EMP	Ecological Management Plan
EIANZ Guidelines	Ecological Impact Assessment: EIANZ guidelines for use in New Zealand : terrestrial and freshwater ecosystems, second edition, dated May 2018
HHMP	Historic Heritage Management Plan
HNZPT	Heritage New Zealand Pouhere Taonga
HNZTA	Heritage New Zealand Pouhere Taonga Act 2014
Confirmed Ecological Area	Means an area or areas of features of ecological value where the Project ecologist has identified that the Project will potentially have a moderate or greater level of ecological effect, prior to implementation of impact management measures, as determined in accordance with the EIANZ Guidelines.
Manager(s)	The Manager or authorised delegate of BOPRC, GDC and / or ODC (as applicable to the area of the relevant Works)
Project	The construction, operation and maintenance

	of Stage 1 of Te Ara Tipuna being the pedestrian track which is the subject of this resource consent application.
Project Liaison Person	The person or persons appointed by the Consent Holder for the duration of the Projects Construction Works to be the main point of contact for persons wanting information about the Project or affected by the Construction Works.
RMA	Resource Management Act 1991
Suitably Qualified Person	A person (or persons) who can provide sufficient evidence to demonstrate their suitability, experience and competence in the relevant field of expertise.
Stage of Work	A specific works area or new activity associated with Construction Works as nominated by the Consent Holder.
SCEMP	Stakeholder Communication and Engagement Management Plan
Works	All works associated with the Project, including Construction Works and other enabling works (ie investigation works) required prior to the commencement construction

GENERAL

1. Activity in General Accordance with Plans and Information

(a) Except as provided for in the conditions below, and subject to final design, Works shall be undertaken in general accordance with the Project description and supporting information listed in Schedule 1:

(b) Where there is inconsistency between:

i. the Project description and supporting information in Schedule 1 and the requirements of the following conditions, the conditions shall prevail;

ii. the Project description and supporting information in Schedule 1, and the management plans under the conditions, the requirements of the management plans shall prevail.

Advice note – The reports and plans listed in Schedule 1 represent an assessment of the effects of the Project, but do not represent the final detailed design. The resource consent conditions require final detailed design plans to be provided as well as management plans to be finalised. The exact location and design of the Project may be different to that identified in Schedule 1, although the envelope of effects will remain the same. For this reason, the words 'in general accordance' in Condition 1 are used to describe how the Project will proceed.

3. Lapse

The consents shall lapse if not given effect to within 10 years from the date of approval.

PRE CONSTRUCTION

4. Detailed Design

Detailed Design Plans shall be prepared and submitted to Council for certification at least 20 working days prior to the start of Works or any Stage of Work.

The Detailed Design Plans shall include information on the following details with respect to the relevant Works:

a) Track formation type – plans and designs
b) Earthworks – area, volume, and cut and fill height
c) Erosion and sediment controls proposed to be deployed
d) Vegetation removal – the nature and extent of removal, species involved and methods of removal
e) Structures – the location, type, purpose and size/shape of structure, including wastewater services
f) Signage – including both Project signage for users and signage for road users public
g) Culverts and drainage facilitating structures – including their location and design standards.

The Detailed Design Plans shall be prepared in general accordance with the Landscape Management Plan submitted as part of the Application.

The Detailed Design Plans shall be accompanied by the following management plan(s), as relevant to the management of effects of those activities or Stage of Work covered by the relevant the Detailed Design Plan:

i. Construction Environmental Management Plan
ii. Construction Traffic Management Plan
iii. Historic Heritage Management Plan
iv. Ecological Management Plan

Advice Note: In the event additional consents are required (due to additional consent triggers) as a result of detailed design or should the track location move significantly from the location shown in Schedule 1, further resource consents and/or a s127 variation may be required and will need to be applied for and obtained.

5. Management Plans

(a) Any management plan shall:

i. Be prepared and implemented in accordance with the relevant management plan condition;
ii. Be prepared by a Suitably Qualified Person(s);
iii. Summarise comments received from Mana Whenua and other stakeholders as required by the relevant management plan condition, along with a summary of where comments have:
    1. Been incorporated in the management plan; and
    2. Where not incorporated, the reasons why.
iv. Be submitted to the relevant Council for certification alongside the Detailed Design Plans required by Condition X.
v. Once certified, uploaded to the Project website or equivalent virtual information source as required by condition X.

(b) Any management plan developed in accordance with this Condition may:

i. Be submitted in parts or in stages to address specific activities (e.g. design or construction aspects) or a Stage of Work of the Project, or to address specific activities authorised by the consent.
ii. Be amended to reflect any minor or administrative changes in design, construction methods or management of effects without further process.

iii. Be amended to reflect more than minor changes by submitting the revised part of the plan to the relevant Council for certification as soon as practicable following identification of the need for a revision.

6. Construction and Environmental Management Plan (CEMP)

(a) A CEMP shall be prepared prior to the commencement of Construction Works or a Stage of Work.

(b) The objective of the CEMP is to set out the management procedures and construction methods to be undertaken to minimise, as far as is practicable, any adverse effects associated with Construction Works. To achieve the objective, the CEMP shall include:

i. the roles and responsibilities of construction staff and contractors;
ii. details of the site or Project manager and the Project Liaison Person, including their contact details (phone and email address);
iii. the Construction Work programmes, proposed staging, and proposed hours of work;
iv. details of the proposed construction yards including temporary screening when adjacent to residential areas;
v. methods for providing for the health and safety of the general public;
vi. procedures for incident management;
vii. procedures for the refuelling and maintenance of plant and equipment to avoid discharges of fuels or lubricants to watercourses;
viii. measures to address the storage of fuels, lubricants, hazardous and/or dangerous materials, along with contingency procedures to address emergency spill response(s) and clean up;
ix. procedures for responding to complaints about Construction Works; and
x. methods for amending and updating the CEMP as required.

7. Stakeholder and Communication and Engagement Management Plan (SCEMP)

(a) A SCEMP shall be prepared prior to the commencement of Construction Works or a Stage of Work.

(b) The objective of the SCEMP is to identify how the public and stakeholders (including directly affected and adjacent owners and occupiers of land) will be engaged with throughout the Construction Works or Stage of Work to minimise (as far as is

practicable) adverse effects associated with Construction Works. To achieve the objective, the SCEMP shall include:

i. the contact details for the Project Liaison Person. These details shall be on the Project website, or equivalent virtual information source, and prominently displayed at the main entrance(s) to the site(s);
ii. the procedures for ensuring that there is a contact person available for the duration of Construction Works, for public enquiries or complaints about the Construction Works;
iii. methods for engaging with Mana Whenua, in respect of which the consent holder shall develop following engagement with Mana Whenua;
iv. a list of stakeholders, organisations (such as community facilities) and businesses who will be engaged with;
v. identification of the properties whose owners will be engaged with;
vi. methods to communicate key Project milestones and the proposed hours of construction activities including outside of normal working hours and on weekends and public holidays, to the parties identified in (iv) and (v) above; and

8. Cultural Monitoring Plan

(a) Prior to the start of Construction Works, a Cultural Monitoring Plan shall be prepared by a Suitably Qualified Person(s) identified in collaboration with Mana Whenua.
(b) The objective of the Cultural Monitoring Plan is to identify methods for undertaking cultural monitoring to assist with management of any cultural effects during Construction Works. The Cultural Monitoring Plan shall include:

i. Requirements for formal dedication or cultural interpretation to be undertaken prior to start of Construction Works in areas identified as having significance to Mana Whenua;
ii. Requirements and protocols for cultural inductions for contractors and subcontractors;
iii. Identification of activities, sites and areas where cultural monitoring is required during particular Construction Works;
iv. Identification of personnel to undertake cultural monitoring, including any geographic definition of their responsibilities; and

v. Details of personnel to assist with management of any cultural effects identified during cultural monitoring, including implementation of the Accidental Discovery Protocol.

9. Construction Traffic Management Plan (CTMP)

(a) A CTMP shall be prepared prior to the commencement of Construction or for a Stage of Work.

(b) The objective of the CTMP is to minimise, as far as practicable, adverse construction traffic effects during Construction Works and to safely control traffic movements to and from each site of Construction Works for the duration of those Construction Works.To achieve this objective, the CTMP shall include:

a. temporary traffic management measures proposed and methods to manage the effects of those measures;
b. measures to ensure the safety of all transport users;
c. the estimated numbers, frequencies, routes and timing of traffic movements, including any specific non-working or non-movement hours to manage vehicular and pedestrian traffic near schools and marae or to manage traffic congestion;
d. site access routes and access points for heavy vehicles, the size and location of parking areas for plant, construction vehicles and the vehicles of workers and visitors; and
e. identification of detour routes and other methods to ensure the safe management and maintenance of traffic flows.

10. Historic Heritage Management Plan (HHMP)

(a) A HHMP shall be prepared prior to the commencement of Construction or for a Stage of Work.
(b) The objective of the HHMP is to identify indirect and direct adverse effects on historic heritage and to set out appropriate methods to avoid, remedy and mitigate them as far as practicable.
(c) A HHMP shall include

i. Details of known archaeological sites and historic heritage places within the area of the Works or Stage of Work;

ii. Details of further archaeological investigations to be undertaken within the area of the Works or Stage of Work.
iii. Reporting methods
iv. Dispute Resolution
v. Roles and Responsibilities

11. Pre Construction Works Ecological Survey

(a) At the start of detailed design for Construction Works or a Stage of Work, an ecological survey and confirmatory effects assessment of the relevant Work area shall be undertaken by a Suitably Qualified Person.

(b) The purpose of the survey and confirmatory assessment is to inform the preparation of and measures to be included in the Ecological Management Plan by:

i. Confirming whether the ecological values within the ecological areas identified at the Works area in the Ecological Assessment are still present (ConfirmedEcological Areas);
ii. Confirming whether there are any ecological areas which have not been previously identified and the ecological values within these areas; and
iii. Confirming that the Project will or may have a moderate or greater level of ecological effect as determined in accordance with the EIANZ Guidelines.

If the ecological survey confirms the presence of ecological features of value in accordance with condition X(a)(i) or (ii)and that effects are likely in accordance with condition X(a)(iii) then an Ecological Management Plan (or Plans) shall be prepared in accordance with Condition X for these areas.

12. Ecological Management Plan (EMP)

(a) An EMP shall be prepared for any Confirmed Ecological Area or newly identified ecological area where effects of the project have been confirmed to be Moderate or greater based on the EIANZ Guidelines (as confirmed through Condition X) prior to the commencement of Construction or a Stage of Work.

(b) The EMP's shall be prepared in general accordance with the templates provided within the Draft Ecological Survey and Management Plan Protocol prepared by Viridis Environmental Consultants.

CONSTRUCTION

13. Construction Complaints Register

(a) At all times during Construction Works, a record of any complaints received about the Construction Works shall be maintained. The record shall include:
   a. The date, time and nature of the complaint;
   b. The name, phone number and address of the complainant (unless the complainant wishes to remain anonymous);
   c. Measures taken to respond to the complaint (including a record of the response provided to the complainant) or confirmation of no action if deemed appropriate;
   d. The outcome of the investigation into the complaint;
   e. Any other activities in the area, unrelated to the Project that may have contributed to the complaint, such as non-project construction, fires, traffic accidents or unusually dusty conditions generally.

(b) A copy of the Complaints Register required by this condition shall be made available to the Manager upon request as soon as practicable after the request is made.

ADDITIONAL STANDARD CONDITIONS – to use standard working to be provided

(a) Pre construction meeting
(b) Construction noise and vibration
(c) Fish Passage
(d) Erosion and sediment control measures
(e) Monitoring
(f) Accidental Discovery

OPERATIONAL

14. Operational Complaints Register

(a) A record of any operational complaints received shall be maintained. The record shall include:

a. The date, time and nature of the complaint;
b. The name, phone number and address of the complainant (unless the complainant wishes to remain anonymous);
c. Measures taken to respond to the complaint (including a record of the response provided to the complainant) or confirmation of no action if deemed appropriate;
d. The outcome of the investigation into the complaint;
e. Any other activities in the area, unrelated to the Project that may have contributed to the complaint.

(b) A copy of the Complaints Register required by this condition shall be made available to the Manager upon request as soon as practicable after the request is made.

15. User Management Plan

(a) The Consent Holder shall prepare, and implement, a user management plan to guide user behaviour.

Appendix 20

Ecological Survey and Management Plan Protocol

VIRIDIS
Environmental Consultants

Te Ara Tipuna

Draft Ecological Survey and Management Plan Protocol

Prepared for: Te Ara Tipuna Charitable Trust

DOCUMENT CONTROL AND REVISION HISTORY

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Cover photo: Te Araroa and ranges towards East Cape, photo by James Shook 2004, CC BY 2.5, https://en.wikipedia.org/w/index.php?curid=2938587.

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1 INTRODUCTION

Te Ara Tipuna Charitable Trust engaged Viridis Limited (Viridis) to prepare a Draft Ecological Management Plan for the proposed Te Ara Tipuna trailway. Te Ara Tipuna will involve establishing and maintaining a 500km path providing for pedestrians, cyclists and horse trekkers around the coast of Te Tairāwhiti, or the East Cape, from Gisborne to Opotiki, with an inland loop around Hikurangi Maunga. The location of the proposed Te Ara Tipuna is shown in Figure 1.

The trail will be aligned where possible with existing recreation tracks, beaches above high tide, farm tracks and unformed legal (paper) roads. In other areas it will be located alongside SH35 and formed local roads. The proposed route crosses public, whenua Maori and private land. The trail is generally proposed as a shared pathway using wayfinding. Depending on local conditions and where there is a functional need, the trail construction may involve the use of boardwalks, simple wooden tracks or gravel tracks. There will also be establishment of toilets and shelters throughout the network to provide amenities for users and potentially the construction of carparks at key points for day or multi-day trips.

Due to the extensive length of the track and the multitude of areas and landscapes it covers, the initial design prepared for the consent application was at a high level. More detailed design is to be undertaken on a staged basis.

The path traverses areas managed by three different councils – the Bay of Plenty Regional Council, Ōpōtiki District Council and Gisborne District Council. Resource consent is required from these councils under the Tairāwhiti Resource Management Plan 2023, the Bay of Plenty Natural Resources Plan 2017, and the Ōpōtiki District Plan 2021. The requirements of national environmental standards (e.g. the NES-F and the NPS – Indigenous Biodiversity (NPS-IB)) and legislation (such as the Wildlife Act 1953 (Wildlife Act)) will also apply to development activities.

Resource consent from the Councils has been applied for under the relevant planning documents and draft consent conditions (v1, February 2024) have been developed. In terms of ecology, these draft conditions require:

> *Pre-construction Ecological Survey:*
>
> *(a) At the start of detailed design for a Stage of Work, an updated ecological survey shall be undertaken by a Suitably Qualified Person. The purpose of the survey is to inform the detailed design of the ecological management plan by:*
>
> *i. Confirming whether the ecological values within the ecological areas identified in the Ecological Assessment provided with the application are still present;*
>
> ii. *Confirming whether the project will or may have a moderate or greater level of ecological effect on ecological species of value, prior to implementation of impact management measures, as determined in accordance with the EIANZ guidelines.*
>
> *If the ecological survey confirms the presence of ecological features of value in accordance with condition X(a)(i) and that effects are likely in accordance with condition X(a)(ii) then an Ecological Management Plan (or Plans) shall be prepared in accordance with Condition X for these areas (Confirmed Biodiversity Areas).*

Ecological Management Plan:

(b) An EMP shall be prepared for any confirmed ecological area (confirmed through Condition X) prior to the Start of Construction for a Stage of Work. The objective of the EMP is to minimise effects of the Project on the ecological features of value of confirmed ecological area as far as practicable.

While detailed Ecological Management Plans (EMPs) will be required for specific areas of the trail, as per the above conditions, it has been requested by the Councils that a draft EMP be submitted as part of the application.

The intention of this draft EMP is to:

- Set out a general methodology and more detailed fauna and habitat specific assessment guidance for pre-construction ecological assessments and surveys for each detailed design and construction stage; and
- Inform stage specific EMPs for each 'confirmed ecological area', including templates for fauna and habitat management plans and guidance on how to minimise, mitigate and offset ecological effects.

This plan has been prepared using a desk top assessment and a review of background information available on the proposal and region and builds on the Ecological Impact Assessment undertaken by TEC and Atkins (2023). Note that no ecological features have been formally identified or assessed in the preparation of this report. The identification, mapping and assessment of these features and potential impacts in relation to the project will be undertaken as part of the ecological surveys and Ecological Management Plan preparation required by resource consent conditions for the detailed design of each stage.

Figure 1. Location of Te Ara Tipuna (map source: LINZ, NZ Topo250)

2 ECOLOGICAL CONTEXT

2.1 Ecological District

Te Ara Tipuna is mainly within the Waiapu, Pukeamaru and Motu ecological districts (EDs). A very small part of the trail is within the Ōpōtiki ED. The key features of these EDs are described by the Department of Conservation (DoC) (1987) and are summarised below.

The eastern section of the trail and much of the Hikurangi Loop is within the Waiapu ED. This ED includes coastal lowlands and hills east of the Raukumara Range with rare indigenous forest remnants. The original hill country forest probably included mainly podocarp-hardwood, with some red beech (*Fuscospora fusca*) and silver beech (*Lophozonia menziesii*) on the highest land and black beech (*Fuscospora solandri*) on lower, mostly broken terrain. There is evidence of former extensive kahikatea (*Dacrycarpus dacrydioides*) dominated podocarp forest on alluvial flats, and semi-coastal and coastal forest on lower country. Much of the district farmed, with increasing areas of exotic forest on severely eroded slopes.

The northern part of the trail is within the Pukemaru ED. This has diverse topography, mainly hills with some steep and wide flat bottomed river values and narrow coastal terraces. The vegetation is a mosaic of pasture, scrub and indigenous forest. The original forest cover was fairly extensive – mostly podocarp-hardwood-beech forest with black and hard beech (*Fuscospora truncata*) at lower altitudes and red beech, silver beech and black beech higher up. Tawa (*Beilschmiedia tawa*) is the main hard wood, mangeao (*Litsea calicaris*), tāwari (*Ixerba brexioides*) and kamahi (*Pterophylla racemosa*) also occur. Pōhutukawa (*Metrosideros excelsa*) and pūriri (*Vitex lucens*) are present in coastal areas and kahikatea dominant forest on alluvial terraces.

The north-western part of the trail and part of the Hikurangi Loop are within the Motu ED. This is steep rugged country, deeply and finely incised with some peaks above the treeline. The highest point is Mount Hikurangi. Vegetation shows an altitudinal sequence of forest types from coastal pōhutukawa and pūriri, through low altitude conifer-tawa-hard beech forest rich in tanekaha (*Phyllocladus trichomanoides*), podocarp-red beech to silver beech forest.

Part of the trail closest to Ōpōtiki is within the Ōpōtiki ED. This ED is characterised by recent coastal alluvial plans and terraces and sandstone headlands. It is now mostly developed for agriculture and horticulture, but was originally forested with small areas of wetland in valley floors. Indigenous vegetation is now restricted to very limited remnants, mainly inland and narrow strips of coastal pōhutukawa forest.

2.2 Summary of Ecological Values, Effects and Mitigation

2.2.1 Background

The proposed trailway will traverse a variety of ecosystem and habitat types and could potentially affect a variety of flora and fauna. Much of the trail is along or adjacent to the coastline. Habitat types potentially affected include dunelands, beaches, coastal cliffs, coastal wetlands, streams, rivers and their riparian margins, forests, and natural inland wetlands.

These environments could be affected during the construction phase through direct habitat loss (e.g. vegetation removal), sediment runoff during construction or exacerbation of erosion, discharges (e.g. from machinery during construction, or from infrastructure such as toilets and huts). They could also be

affected through use in the long term – e.g. through increased edge effects, spread of weeds and pests, litter, faecal waste from people and horses, and trampling.

An ecological impact assessment (EcIA) for Te Ara Tipuna has already been prepared and submitted with the resource consent application (TEC and Atkins, 2023). Findings from that assessment fed into the design of the proposed alignment and as much as possible areas of ecological significance were avoided. Overall, the EcIA found that the potential ecological impacts of the proposed trail way can be adequately mitigated through track alignment, construction methods and mitigation measures to have an overall low ecological effect.

This section summarises the findings of the EcIA on areas of ecological significance, provides information on the types of ecological effects that may occur due to track construction and summarises the types of mitigation proposed to address these effects.

2.2.2 Areas of ecological significance

Areas of ecological significance considered in TEC and Atkins (2023) were those identified in the relevant council plans and others managed outside of council plans (Te Tapuwae O Rongokako Marine Reserve – Pouawa, Ngā Whenua Rāhui Kawenata covenanted areas and QEII National Trust covenanted areas). While the proposed alignment avoids most of those areas, a number were identified as being potentially affected, with a magnitude of ecological effects from moderate to high without mitigation. Mitigation measures were expected to reduce the effects on all the identified sites of ecological significance to low. Figure 2 identifies and shows the location of the sites of ecological significance identified as potentially affected by Te Ara Tipuna and Appendix A provides describes each of the sites and summarises the mitigation measures proposed to address these effects (as per TEC and Atkins, 2023).

2.2.3 Terrestrial ecology

Vegetation clearance and disturbance associated with trail construction has the potential to affect areas of remnant native forest, regenerating forest, rare plant species and the habitats of protected native fauna such as birds, bats and lizards. The value of these areas of vegetation and habitat that the trail passes through and the potential effects will be assessed in the detailed design phase of each stage. Where the potential level of effects is moderate or higher, the first step will be to consider whether the design can be modified to first avoid the effect and then to reduce the level of effect to low or negligible. Where this is not possible, an Environmental Management Plan will be developed, which will outline the mitigation or offset required to address the potential effects. This could include fauna management plans for bats, lizards or birds, implementation of arborist advice, restoration of an area, replanting, offset planting and weed control.

Figure 2. Locations of Sites of Ecological Significance Potentially Affected by Te Ara Tipuna identified by TEC and Atkins, 2023 (map source: LINZ, NZ Topo250)

2.2.4 Freshwater ecology

The trail has been designed to avoid wetlands and leave a 10 m buffer around them. However, the focus of the initial EcIA was on larger areas of ecological significance and it is possible that smaller areas of wetland have not been identified. The detailed design stage will include identification and assessment of other potential wetland areas that may be affected, and where possible the trail will be adjusted to avoid them.

The trail will cross many streams and rivers. Many of these crossings will utilise existing bridges and additional bridges are proposed in other areas and generally works within watercourses will be avoided as much as possible. However it is possible that in other areas, particularly smaller streams, that culverts may be proposed in the detailed design stage and stream beds will be disturbed. This could have potential impacts on freshwater habitats and instream fauna. The ecological surveys undertaken during the detailed design phase will identify these areas and where the potential level of effects is moderate or higher, the first step will be to consider whether the design can be modified to first avoid and then reduce the level of effect to low or negligible. Where this is not possible, an Environmental Management Plan will be developed, which will outline the mitigation required to address the potential effects. In some cases fish and/or Hochstetter's frog relocation may be required.

Freshwater habitats may also be affected by erosion, sediment and other discharges, and it is important that mitigation measures such as keeping works away from waterways where practicable, managing earthworks to avoid sediment runoff and placing features such as toilets in appropriate locations.

2.2.5 Coastal ecology

Most of the trail is located close to the coast and therefore there is potential for coastal habitats such as sand dunes, beaches, foreshore areas, estuaries and coastal wetlands and their associated fauna to be affected. The ecological surveys undertaken during the detailed design will identify these areas and where the potential level of effects is moderate or higher, the first step will be to consider whether the design can be modified to first avoid and then reduce the level of effect to low or negligible. Where this is not possible, an Environmental Management Plan will be developed, which will outline the mitigation required to address the potential effects. Mitigation could include implementing bird and lizard management plans, fencing of sensitive areas to reduce the risk of accidental damage during works, sediment and erosion control, discharge managements or leaving buffer zones.

2.2.6 Other mitigation opportunities

Long term use of the trail has the potential to effect habitats and organisms living nearby. A passport system is proposed for track users to help educate them on appropriate track behaviour and things they can do to minimise their impact on the environment. There is also the opportunity for further education using signs along the track. Community involvement through planting days, community restoration projects, weed and pest control and fauna relocation are other ways to improve ecological values, educate and obtain community by-in. Other methods to improve habitat values could include provision of penguin nesting boxes, creating skink refuges, and leaving rotting logs in vegetated areas for invertebrate habitat.

3 PRE-CONSTRUCTION ECOLOGICAL SURVEY

3.1 Introduction

This section sets out a general methodology for pre-construction ecological surveys for each detailed design stage to identify potential 'confirmed ecological areas' and to determine whether an ecological management plan is required. The ranking framework provided by the Environment Institute of Australia and New Zealand (EIANZ) "Ecological Impact Assessment guidelines (EcIAG) for use in New Zealand: terrestrial and freshwater ecosystems" (Roper-Lindsay et. al. 2018) will be used to assign value to the ecological features and components potentially impacted, and determine the magnitude and level of effect. If an updated version of the EcIAG is published, the updated version should take precedence.

Initially, a desktop review of the proposed stage and route would be undertaken to identify the areas on which to focus on during the ecological survey. Site visits to the proposed route will then be undertaken, focusing on those areas identified in the desk top assessment as potentially having ecological values that may be impacted by the pathway, and surveying them to assess their ecological value and the potential magnitude of effects on those values.

The ecological value of the ecological features that are potentially affected by the proposed path will be assessed in line with Chapter 5 of the EcIAG, on a scale from '*Negligible*' to '*Very High*'. The ranking system considers the matters of representativeness, rarity / distinctiveness, diversity and pattern and ecological context to determine ecological value.

Criteria for describing the magnitude of effects are given in Chapter 6 of the EcIAG. The level of effect can then be determined through combining the value of the ecological feature/attribute with the score or rating for magnitude of effect to create a criterion for describing level of effects (Table 1). A moderate or higher level of effect requires careful assessment and analysis of the individual case. For moderate levels of effects or above prior to mitigation, measures need to be introduced to avoid through design, or appropriate mitigation needs to be addressed (Roper-Lindsay et al. 2018), and preparation of an Ecological Management Plan will be required.

Table 1. Criteria for describing the level of effects (from Roper-Lindsay et al. 2018).

Magnitude of Effect	**Ecological Value**				
	Very High	**High**	**Moderate**	**Low**	**Negligible**
Very High	*Very High*	*Very High*	*High*	*Moderate*	Low
High	*Very High*	*Very High*	*Moderate*	Low	Very Low
Moderate	*High*	*High*	*Moderate*	Low	Very Low
Low	*Moderate*	Low	Low	Very Low	Very Low
Negligible	Low	Very Low	Very Low	Very Low	Very Low
Positive	Net Gain	Net Gain	Net Gain	Net Gain	Net Gain

Notes: Where text is italicised, it indicates 'significant effects' where mitigation is required.

3.2 Pre-Construction Survey Methodology

Table 2. Methodology for undertaking pre-construction ecological surveys at the detailed design stage (note that further detail on assessing potential effects is provided in Chapters 4 – 10).

Step	Checklist	Decision
1. Desktop assessment to identify potential ecological features affected		

Check whether the route crosses or comes close to any previously identified areas of ecological significance and involves any construction or path widening within or close to these areas	1. Check the Ecological Impact Assessment (TEC and Atkins, 2023)
	2. Check the relevant local planning documents for other identified and scheduled areas
	Bay of Plenty Regional Council and Ōpōtiki District Council area:
	• Bay Explorer GIS database, under "Plans" open:
	  ○ "Regional Coastal Environment Plan – Operative" and turn on the Indigenous Biological Diversity Area (IBDA) A and B layers
	  ○ "Regional Policy Statement" and turn on the Coastal Environment – Natural Character layer
	  ○ "Opotiki District Plan", "Operative 2021" and turn on "Natural Form"
	Gisborne District Council area:
	• Tairawhiti Maps GIS database:
	  ○ Turn on the "Coastal Management", "Freshwater", and "Natural Resources" layers
		If the route does involve works close to or within identified areas of ecological significance undertake site visit to assess potentially affected features

Review aerial imagery and construction plans to identify whether vegetation clearance is required	Check for a variety of vegetation types that may be of ecological value: • Native forest • Native or exotic trees that may be > 15 cm dbh (possible bat habitat) • Scrub • Dense weedy vegetation, rank grass or rough open areas with clumps of vegetation (possible lizard or pipit nesting habitat) • Coastal dune vegetation Note that managed pasture / grass areas are generally of low ecological value and are unlikely to provide significant indigenous fauna habitat.	If vegetation providing ecological values is proposed to be cleared, undertake site visit to assess potentially affected features

Step	Checklist	Decision
Review aerial imagery, contour and stream data alongside construction plans to identify whether any construction or path widening crosses or comes close any streams, rivers or wetlands	• Use contours and aerial imagery to identify potential wetlands (e.g. low lying areas with vegetation that appears to differ from the surrounding area) • Use contours and stream data to identify any stream crossings not already identified, including small streams that may not show up on topography maps • Check whether any culverts or stream bed disturbance is proposed in the plans • Consider proposed locations of toilets in relation to freshwater features • Check for areas of earthworks within 100 m of streams, waterways or wetlands	Where proposed works and path come close to or are within potential wetlands, streams or rivers, undertake site visit to assess potentially affected features. Where earthworks are proposed within 100 m of freshwater features, review erosion and sediment control plans.
Review aerial imagery and plans to identify whether construction or works are required within or close to dune, beach, foreshore or coastal wetland areas	• Are any works or new accessways proposed across sand dunes? • Could works disturb nesting bird habitat? • Are coastal wetlands potentially affected? • Are works proposed within the riparian margins of estuary or river mouths where there may be salt water influence?	If yes, undertake site visit to assess potentially affected features
2. Site assessment of identified potential ecological features, ecological values and level of effect[1]		
Identified areas of ecological significance	• Assess the ecological values of the area affected, the magnitude of effects of the proposed works and the overall level of effect in line with the EcIAG methodology and Chapters 4 to 10. • Document the assessment undertaken	If the assessment identifies a moderate or higher level of effect prior to mitigation on an area of ecological significance, and the proposed works or route cannot be modified to avoid this affect, then this is a "Confirmed Biodiversity Area" under the resource consent conditions and an EMP is required.
Areas of proposed vegetation clearance	• Use Chapters 4 – 7 and the EcIAG methodology to assess the ecological values of the vegetation, lizard, bat and bird habitat values, the magnitude of effects of the proposed works and the overall level of effect in line with the EcIAG methodology	If vegetation clearance will result in a moderate or higher level of effect on fauna or vegetation prior to mitigation, and the proposed works or route cannot be modified to avoid this affect,

[1] In cases where recent high quality drone footage of the proposed route is available, this may provide enough information to assess ecological features without need for an ecology site visit to some areas identified as requiring further assessment in the desktop study.

Step	Checklist	Decision
	• Document the assessment undertaken	then this is a "Confirmed Biodiversity Area" under the resource consent conditions and an EMP is required.
Freshwater environments, including streams, rivers and wetlands	• Assess any potential wetland areas identified in the desk top study using the methodology outlined in Chapter 8 to confirm whether they are actual natural inland wetlands • Use Chapters 7, 8 and 10 and the EcIAG methodology to assess the ecological values of the freshwater features potentially affected, the magnitude of effects of the proposed works and the overall level of effect in line with the EcIAG methodology • Document the assessment undertaken	If proposed works will result in a moderate or higher level of effect on any stream, river or wetland or associated fauna such as birds, fish or amphibians prior to mitigation, and the proposed works or route cannot be modified to avoid this affect, then this is a "Confirmed Biodiversity Area" under the resource consent conditions and an EMP is required.
Coastal habitats	• Use Chapters 4, 5, 7, 9 and 10 and the EcIAG methodology to assess the ecological values of the coastal features potentially affected, the magnitude of effects of the proposed works and the overall level of effect in line with the EcIAG methodology • Document the assessment undertaken	If proposed works will result in a moderate or higher level of effect on any coastal habitats or associated fauna such as birds, lizards or fish prior to mitigation, and the proposed works or route cannot be modified to avoid this affect, then this is a "Confirmed Biodiversity Area" under the resource consent conditions and an EMP is required.

4 VEGETATION MANAGEMENT PLAN

4.1 Introduction

The purpose of this Vegetation Management Plan (VMP) is to help guide the assessment of actual and potential adverse effects on native vegetation types due to the construction and operation of Te Ara Tipuna. It summarises the broad vegetation types that may be present along the route, comments on the potential effects of the path on vegetation, gives guidance on how to assess the potential effects on vegetation during the pre-construction ecological assessments for each stage and discusses the ways that any identified effects may be mitigated.

Significant fauna that may be affected by vegetation removal such as herpetofauna, bats and birds are addressed in the specific fauna management plans.

4.2 Vegetation Types

Te Ara Tipuna potentially passes through a variety of vegetation types, including:

- Native forest remnants ranging from coastal pōhutukawa and pūriri, to kahikatea to low altitude conifer-tawa-hard beech forest and podocarp-hardwood forest;
- Scrub and regenerating vegetation such as mānuka (*Leptospermum scoparium*) and kānuka (*Kunzea* sp.);
- Sand dune vegetation; and
- Plantation forest.

Some rare flora are known to occur in the area. Lists of rare flora can be found in Gisborne District Council's Tairāwhiti Resource Management Plan 2017 (Schedule G7B), Ecological Regions and Districts of New Zealand (DoC 1987) and on the New Zealand Plant Conservation Network website (www.nzpcn.org.nz).

4.3 Potential Effects on Vegetation

Vegetation may be affected by the construction and use of Te Ara Tipuna through a variety of direct and indirect effects.

Direct effects:

- Vegetation and habitat loss through vegetation clearance;
- Mortality or injury to species during vegetation clearance;
- Noise, vibration, earthworks or dust effects.

Indirect effects:

- Effects on vegetation health – e.g. through damage to tree roots;

- Increase of habitat edge effects[2] where vegetation has been removed, altering the composition and health of adjacent vegetation, which may affect habitat suitability for flora and fauna;
- Reduced connectivity and habitat fragmentation due to loss and reduction of available habitat types. Connectivity between areas of vegetation is important to facilitate ecological function, and loss of connectivity can impair reproductive function for both flora and fauna communities;
- Discharge of sediment to aquatic receiving environments that may affect the quality of wetland and stream habitats;
- Spread of weed species, e.g. through physical relocation of plant fragments and seeds by walkers, bikers and horses and increased edge effects;
- Potential spread of plant pathogens.

4.4 Assessment of Vegetation Values and Effects

An initial review of aerial imagery and works plans for each stage should be undertaken initially by an ecologist to identify any areas of potential vegetation clearance. Where this review indicates that indigenous vegetation or potential habitat for indigenous fauna such as bats, lizards and birds will occur, a site visit will be undertaken to determine the ecological values and the potential magnitude of effect of the proposed works on those values in line with EcIAG methodology described in Section 3.

An assessment by an arborist may also be required to understand whether the proposed works will indirectly (e.g. root damage) affect vegetation or a significant single tree.

Where the overall level of effects on vegetation is considered to be *moderate* or higher, then mitigation is required to address these effects.

4.5 Effects Management

4.5.1 Avoidance and minimisation

During the initial design stage, efforts were made to reduce the amount of vegetation clearance through route selection. The detailed design stage for each section of track provides another opportunity to modify the route or methodology to minimise the loss of indigenous vegetation or fauna habitat and reduce the potential for increased edge effects and fragmentation. The preference is to avoid vegetation loss as much as possible.

Where works are to occur close to vegetated areas of high ecological value or potential bird or bat nesting or roost habitat, then these areas should be clearly marked by flagging tape, spray paint or fencing and a buffer maintained to avoid inadvertent clearance and to minimise potential damage to branches and roots.

[2] 'Edge effects' are indirect, typically adverse effects that result from changes to an area of vegetation or habitat as a result of adjacent impacts (e.g., increased light, desiccation). Exposing previously interior vegetation to edges can result in changes in composition, through increased light penetration, damage as a result of change in stressors from wind and other weather, and can result in invasion of weed species.

4.5.2 Remediation and mitigation

Where avoidance of vegetation loss is not possible, remediation and mitigation are required to ensure that the overall level of ecological effect is no more than *low*. Suitable mitigation measures will be determined on a site by site basis but could include:

- Reinstatement and restoration of vegetation in disturbed areas through planting;
- Consideration of clearance and felling methodologies to minimise damage to vegetation immediately adjacent to the clearance;
- Implementation of fauna management plans where vegetation clearance may affect birds, bats or lizards – e.g. pre-clearance surveys for bats or birds, lizard relocation, avoiding clearance within breeding season;
- Where suitable sites exist, leaving large fallen and decaying logs and a proportion of cleared, non-weedy, vegetation in-situ to provide habitat for invertebrates and other fauna;
- Weed control where weeds are present and may spread due to increased edge effects or traffic on the path way;
- Erosion and sediment control where removal of vegetation will expose soil;
- Relocation of small seedlings and plants where feasible;
- Seeking and implementing arboricultural advice within native regenerating and mature forest habitat types or adjacent to significant trees on how to minimise tree damage and accommodate the works;
- Use of mulch generated from vegetation clearance to assist in erosion / sediment control or for site rehabilitation and ecological restoration purposes, taking care to ensure that wood chips will not enter streams and gullies (i.e. try to avoid placing mulch within 10 m of streams or wetlands) and that weed species are not included. Care also needs to be taken to minimise the potential for wood waste leachate to enter waterways from any mulch storage piles.

4.5.3 Offsetting

Where there are residual significant ecological effects or a net loss of biodiversity associated with vegetation clearance after the avoidance, remediation and mitigation hierarchy has been applied, then additional steps, such as biodiversity offsetting, may be required to deliver 'No Net Loss' or a 'Net Positive Impact' on biodiversity or ecological values. Biodiversity offsets are of three main types:

- "restoration offsets" which aim to rehabilitate habitat (e.g. through revegetation);
- "enhancement offsets", which aim to restore degraded habitat (e.g. through control of pests or weeds, enrichment planting, fencing out stock), and
- 'averted loss offsets' which aim to reduce or stop biodiversity loss (e.g. future habitat degradation) in areas where this is predicted.

Offsets are often complex and expensive, require time to plan for and implement, and are not carried out until management options addressing earlier steps in the hierarchy (in particular, avoidance of adverse effects) have been exhausted.

The ecological values and magnitude of effects assessed during the ecological surveys and the degree of residual ecological effects after mitigation will inform the required amount of offsetting required, where appropriate. This potential offsetting will likely take the form of restoration planting, typically at a higher ratio to the amount of vegetation removal that takes into account the age and ecological value of the vegetation lost and the time lag associated with maturing of planted areas.

If offsetting is required, then the following key offsetting principles should be applied as a minimum:

- **Landscape context:** an offset action is undertaken where this will result in the best ecological outcome, preferably close to the impact site or within the same ecological district.
- **Time lags:** the delay between loss of extent or values at the impact site and the gain or maturity of extent or values at the offset site is minimised.
- **Additionality**: An offset achieves gains in extent or values above and beyond gains that would have occurred in the absence of the offset.

4.6 Planting Plans

Any planting proposed as part of the management of effects on vegetation (e.g. in site reinstatement or to offset residual ecological effects) will need to be detailed in a planting plan. Planting plans should include the following minimum details:

- The area proposed to be planted.
- The purpose of the planting (e.g. habitat restoration, buffer planting).
- Location and extent of planting illustrated on a plan.
- Site preparation required – e.g. fencing from stock, weed and animal pest control.
- Appropriate species to the ecological region and habitat.
- Use of eco-sourced plants where possible.
- Density of planting.
- Size of plants.
- Where any Myrtaceae species are to be planted (e.g. mānuka, kānuka, pōhutukawa), how spread of myrtle rust (*Austropuccinia psidii*) will be avoided.
- Time of planting – late autumn or winter is usually best, although in some areas this may increase exposure to frost.
- Maintenance required to ensure successful establishment, including fertiliser, releasing plants, weed and pest control, monitoring, replacement planting, mulching.
- Any long term protection measures e.g. fencing or covenant.

5 LIZARD MANAGEMENT PLAN

5.1 Introduction

Reptiles / ngārara comprise a significant component of New Zealand's terrestrial fauna. There is currently 135 endemic herpetofauna taxa recognised in New Zealand (Hitchmough et al., 2021), 85.9% of which are considered 'Threatened' or 'At-Risk'.

The purpose of this Lizard Management Plan (LMP) is to identify and address actual and potential adverse effects on native reptiles associated with the construction of Te Ara Tipuna. It specifies the management measures required to minimise and mitigate anticipated adverse impacts, which will be achieved through:

- Minimising adverse effects on lizards associated with vegetation or site clearance activities;
- Using current best practice methodologies to capture indigenous lizards from vegetation in the project footprint immediately prior to and during vegetation clearance; and
- Relocating captured individuals to suitable habitats (avoid and minimise mortality of wildlife protected by the Wildlife Act).

5.2 Statutory Context

All indigenous reptiles are legally protected under the Wildlife Act, and vegetation and landscape features that provide significant habitat for native reptiles are protected by the Resource Management Act 1991 (RMA) (Section 6(c)). This includes ostensibly low value exotic vegetation that can support populations of native lizards. Statutory obligations require management of resident reptile and amphibian populations if they are threatened by a disturbance.

A Wildlife Act Authority (WAA) is required to capture, handle, and relocate indigenous lizards.

5.3 Species Potentially Present

A review of DoC's Herpetofauna database (accessed 22/04/2024), iNaturalist records, Purdie (2022) and NZHS (undated) was undertaken to identify the lizard species that may potentially be found along Te Ara Tipuna. The species and their habitat types are summarised in Table 3.

Overall, there is the potential for native lizard species to be present in suitable habitat along the full length of the Te Ara Tipuna. Therefore, the ecological assessments of each stage should assess the potential for suitable habitat to be present, and as much as possible the disturbance or removal of suitable habitat should be avoided. Where this is not possible, lizards should be relocated by a suitably qualified and certified herpetologist / ecologist to a nearby suitable habitat.

Table 3. Lizard species potentially found along Te Ara Tipuna (* indicates DoC herpetological database records within 10 km of trail).

Common name	Binomial name	Conservation status	Habitat type
Barking gecko*	*Naultinus punctatus*	At Risk - Declining	Forested habitats including swamps, scrubland, sub-alpine scrub, mature forest, scrubby/regenerating habitats.

Common name	Binomial name	Conservation status	Habitat type
Ngahere gecko*	*Mokopirirakau* "southern North Island"	At Risk - Declining	Forested habitats, including swamps, scrubland, and mature forests (beech, podocarp, and broadleaf).
Forest gecko*	*Mokopirirakau granulatus*	At Risk - Declining	Primarily arboreal (tree-dwelling), closely associated with a range of different habitats, including swamps, scrubland, regenerating habitats, mature forests (beech, podocarp, and broadleaf), and rock fields.
Pacific gecko	*Dactylocnemis pacificus*	Not Threatened	Swamps, scrubland, mature forests, rocky coastlines, back-dunes, rocky islets, and rock outcrops. In these habitats, they often take refuge within creviced rock and clay banks, tree hollows, under loose bark, in dense ground vegetation (such as *Gahnia* spp.), and in epiphytes.
Raukawa gecko*	*Woodworthia maculata*	Not Threatened	Strongly associated with coastal habitats. Often associated with rocky habitats, however, can be found in variety of habitats, from sandy or rocky coastlines right through to inland beech and broadleaf forests.
Copper skink*	*Oligosoma aeneum*	At Risk - Declining	Forest, scrubland, beaches, pasture, gardens, thick rank grass, under rocks, logs and other debris.
Ornate skink*	*Oligosoma ornatum*	At Risk - Declining	Forested areas, shrubland and heavily vegetated coastlines. Often found amongst leaf litter, in dense low foliage, thick rank grass and under rocks or logs.
Striped skink*	*Oligosoma striatum*	At Risk - Declining	Native forest, rank pasture hardwood and pampas shelterbelts. Primarily arboreal but also found under rotting logs.
Shore skink*	*Oligosoma smithi*	At Risk - Declining	Dunelands, rocky coastal platforms, pebble/boulder beaches. Often utilise debris washed up onto the high tide mark as refugia, including driftwood, beach-wrecked animals, and clumps of seaweed.
Northern grass skink*	*Oligosoma polychroma*	Not Threatened	Preferring open areas including coastal vegetation, rock piles, grassland, flaxland, shrubland, screes, forest margins tussock and modified urban / suburban habitats. Often takes refuge in dense vegetation or under rocks and logs.

The introduced plague skink (*Lampropholis delicata*) is also likely present along the proposed trail. These occur across a wide range of habitats, including gardens, industrial sites, road and railway clearings, rough pasture, open coastal habitats, as well as clearings around forests and shrublands. The plague skink is not protected by legislation, and is not subject to this management plan.

5.4 Potential Effects on Lizards

Some vegetation clearance will be required during construction of Te Ara Tipuna. If indigenous lizards are present within the affected area, potential adverse effects on lizards may include:

Direct effects:

- Mortality during vegetation clearance or habitat disturbance
- Injury during physical clearance works

Indirect effects:

- Loss of habitat
- Habitat fragmentation
- Temporary noise disturbance

Managing effects on lizards requires mitigation through a salvage and relocation programme. Note that any loss of indigenous lizard habitat is expected to be offset through revegetation planting proposed to offset vegetation loss in Section 4, however additional measures may be required to offset lizard habitat loss if the revegetation planting area is not associated with the lizard habitat.

5.5 Assessment of Lizard Habitat Values and Effects

Habitat types where lizard fauna may be found in the route of Te Ara Tipuna include:

- Forested areas including mature forest, regenerating forest and scrubland;
- Wetland vegetation;
- Dense low lying vegetation and ground cover;
- Rank grass and weedy areas;
- In rock piles and under rocks, logs and other vegetation; and
- Coastal areas, including dunelands, sandy or rocky coastlines, pebble/boulder beaches, driftwood.

A review of aerial imagery, topography, site photos, and works plans for each stage should be undertaken initially by an ecologist to identify whether potential herpetofauna habitat may be disturbed by the proposed work. If potential habitat is affected, or there is uncertainty, a site visit should be undertaken to confirm whether lizard habitat is present, the ecological values and the potential magnitude of effect of the proposed works on those values in line with EcIAG methodology described in Section 3. Where the overall level of effect is considered to be moderate or higher prior to mitigation, measures need to be introduced to avoid effects through design, or appropriate mitigation needs to be addressed, and preparation of a stage specific Ecological Management Plan, including the Reptile Management measures outlines in Section 5.6 below, will be required.

5.6 Reptile Management

5.6.1 Habitat avoidance

During the initial design stage, efforts were made to reduce the amount of vegetation clearance and habitat modification required through route selection. The detailed design for each section of track will be staged, and this provides another opportunity to identify potential reptile habitat and avoid habitat clearance as much as possible.

Any areas to be avoided are to be clearly delineated (with flagging tape or fencing) to reduce the chance of accidental clearance or works outside of the designated footprint.

5.6.2 Salvage

Where it is not possible to avoid clearance of potential reptile habitat, salvage and reptile relocation will be undertaken immediately prior to and during work. Salvage will be conducted under the supervision of a suitably qualified, experienced and permitted ecologist or herpetologist. Alternative methods can be used to those detailed below (e.g. use of Artificial Cover Objects, ACOs). Any use of alternative methods will need to be detailed in the finalised EMP for each stage.

Timing

Work in potential reptile habitats should occur between September and April (inclusive). Lizard salvage activities are confined to warmer months when lizards are the most active and likely to be detected if present.

All lizard management activities are required to be undertaken during fine, calm, and dry weather.

Trapping, day searches and spotlighting are to be undertaken in the week leading up to vegetation removal, and destructive searches immediately prior to and during vegetation clearance.

Trapping

Baited pitfall traps and "Gee's minnow" funnel traps will be installed in an approximate 10 m x 10 m grid[3] across all areas of potential habitat[4]:

- Pitfall traps will be used where terrestrial species like skinks are being targeted. They will be covered with Onduline ACOs installed for one week before opening, to settle into the environment.
- Gee's minnow traps will be installed in areas where substrate/terrain do not allow for pitfall trapping, or where geckos are potentially present (geckos can escape from pitfall traps and funnel traps can be installed in trees and scrub to catch arboreal species).
- Each trap will be baited with fruit and will contain a wetted sponge to reduce risk of desiccation.
- Traps are to be placed in shaded areas away from potential inundation with water, and checked daily, to limit adverse effects on lizards (stress, desiccation, drowing etc.).
- Funnel traps set on the ground are generally set a little into the substrate. For example, on the forest floor the leaf litter may be cleared away to provide a small indent and then pushed up around the trap. For traps set within rocky areas, the trap opening is generally set so that it is below some rocks. Funnel traps may also be set high-up on vegetation to capture arboreal species, and in this case need to be secured firmly so they do not fall or get blown out of the bush/tree.

[3] As the potential habitats present within and around the site are typically small and fragmented, a standard 10x10 m grid for pitfall/gee minnow trapping may not be feasible at all sites (e.g. some of the sites are smaller than 10x10 m, in which case only a single pitfall/gee minnow would be installed). So, to ensure sufficient salvage effort, a minimum of four pitfalls/gee minnows will be installed at each potential habitat.

[4] Note that alternative methods can be utilised (e.g. ACOs). Any use of alternative methods will need to be detailed in the finalised EMP for each stage.

Trapping will discontinue after:

a) a minimum of five days of trapping overall; and

b) a minimum of three consecutive, fine-weather days with no captures or observations.

Active searches

During trap checks, manual diurnal (day) searches will be undertaken for lizards across all potential reptile habitat types within the works footprint. Diurnal searching is a proven technique for detecting both diurnal and lizards in New Zealand (Whitaker 1994; Lettink and Hare, 2016).

Diurnal searches would involve systematically lifting debris (e.g., logs, rocks, and organic and inorganic material), searching through vegetation foliage, thickets, and log piles by hand or with the assistance of tools (e.g., rakes; Bell, 2017), and searching beneath flaking tree bark or within tree cavities to reveal lizards. Where possible, dense vegetation thickets or log piles would be dismantled in a piecemeal fashion down to ground level to ensure all potential retreat sites have been searched.

Where large immovable structures (e.g., logs) are identified in the footprint, but cannot be effectively searched, these would be marked (e.g., dazzled, painted) and re-inspected during the supervised vegetation clearance and machine-assisted search stage of the salvage operation.

Where arboreal geckos are potentially present, nocturnal (night) searches must also be undertaken on at least two nights.

Destructive habitat searches

After trapping is complete, destructive habitat searches will be carried out in conjunction with the vegetation clearance or works contractor[5]. Destructive searches will include the sensitive dismantling of any rock or debris piles, the overturning of any larger debris, and the hand searching of any vegetation. Where practicable, rocks and debris will be removed from the site following dismantling, to reduce the likelihood of recolonization prior to works. The project ecologist or herpetologist would work alongside vegetation clearance contractors and machine operators during the vegetation removal process to recover lizards from difficult to access locations.

At no stage should areas identified as potential lizard habitat be mulched *in situ* by lowering a mulch-head directly onto standing vegetation. Mulching standing vegetation is highly destructive and eliminates all opportunities to recover individuals or for the lizards to vacate the vegetation of their own accord before the vegetation is destroyed.

Lizard handling and containment

Native lizards would be captured and handled by the DOC-authorised project ecologist or herpetologist only. Lizards will be held individually in cloth bags in a secure, vented container or in temporary containment box(es), filled with vegetation matter and leaf litter and misted with water out of the sun. Lizards will be held temporarily for the period of the active searches or trap inspections and then transported to the release site as soon as possible.

[5] Where pre-construction trapping and searches have not found native lizards to be present, the project ecologist or herpetologist may decide that the area is unlikely to support lizard populations and that destructive searches during vegetation clearance are not necessary.

Release site selection

All captured lizards are required to be released into suitable habitat, as defined by the following criteria:

1. **Habitat size and complexity** – ensure the relocation habitat is representative (equal quality) or of better quality, than the original capture site(s).
2. **Vicinity to original population** – limit the distance that lizards are relocated from their original capture site(s). Distances up to 1.5 km would meet this criterion.
3. **Habitat that has long-term security** from further development or modification, such as DOC or Council-managed reserves, or legal protection through covenanting or local plan rule provisions.
4. **Habitat that is enhanced**, using accepted techniques such as provision of extra refuges suitable for the species or long-term predator control.

Habitat enhancement of release site

Introducing new individuals into an already occupied environment could lead to competition and/ or resource availability issues. To mitigate these potential risks, management measures to enhance the relocation site, and its immediate surrounds, to increase the overall carrying capacity of the area are recommended where the number of relocated lizards is greater than ten.

Enhancement measures could include revegetation planting, provision of supplementary refuges (e.g., logs), or long term predator control.

5.7 Accidental discovery, injury or mortality

Should incidental finds of lizards occur outside of the proposed salvage programme, the project herpetologist should be notified as soon as possible. If the lizards are not at immediate risk, works in the area will halt until the herpetologist can arrive and salvage the lizard. If the lizard is at immediate risk of injury or death due to on-site activities, it will be salvaged by the construction team and placed in a container (with air holes, vegetation and food) until the herpetologist can arrive. Guidance will be provided to the construction team on this process by the herpetologist.

The following steps would be implemented if any injured or dead native lizards are found during the salvage operation:

- The project herpetologist would report any injured or dead lizard found during implementation of the LMP;
- Any lizard death of ‘Threatened’, ‘At Risk’ species shall be sent to Massey University Wildlife post-mortem service for necropsy (the body would need to be chilled if it can be delivered within 48 hours, frozen if longer than 24 hours to deliver);
- Appropriate measures shall be undertaken to minimise further lizard deaths;
- Injured lizards found during salvage would be taken to a suitably qualified vet as soon as possible for assessment and treatment. Injured lizards would be kept in an appropriate portable enclosure (as described above) under the direction of the project herpetologist to ensure the animal is handled appropriately until the lizard(s) can be assessed and treated;
- Lizards assessed by the vet or alternative specialist as uninjured, or otherwise in suitable condition for release, would be transported to the relocation site in the portable enclosure and released; and

- Euthanasia of injured lizards shall only be undertaken under direction from DOC.

5.8 Reporting

A works-completion report would be prepared by the ecologist following completion of vegetation removal / works for submission as per resource consent and WAA permit requirements and an ARDS report (Amphibian Reptile Distribution Scheme, DoC) completed for submission to DoC.

6 BAT MANAGEMENT PLAN

6.1 Introduction

The purpose of this bat / pekapeka management plan is to identify and address actual and potential adverse effects on native bats associated with the construction of Te Ara Tipuna. It specifies the management measures required to minimise and mitigate anticipated adverse effects, which will be achieved through minimising clearance of potential bat roost trees and where such trees will be felled, using current best practice methodologies to confirm whether bats are present prior to felling.

New Zealand has two species of endemic bats on the mainland. The most widespread is the long-tailed bat (*Chalinolobus tuberculatus*, Threatened – nationally critical), although colonies are assumed to be small and their health is largely unknown (O'Donnell et al., 2023). The lesser short-tailed bat has three described subspecies; the northern lesser short-tailed bat (*Mystacina tuberculata aupourica,* Threatened – nationally vulnerable), the central lesser short-tailed bat (*Mystacina tuberculata rhyacobia,* At-risk – declining) and the southern lesser short-tailed bat (*Mystacina tuberculata tuberculata,* Threatened – nationally increasing) (O'Donnell et al., 2023). The central short-tailed bat is known to occur in the East Cape.

Bats roost in tree hollows and under split bark of native and exotic trees, and also in rocky overhangs. Bats go into a 'torpor' in cold weather and stay in their roosts. They wake up as soon as the weather becomes warmer. Over the breeding season, large communal roosts occur in similar habitat. Bats tend to utilise linear features in the landscape, including vegetation edges, gullies, waterways, and road corridors as they transit between roosts and foraging sites. Long-tailed bats in particular are known to be highly mobile, with large home ranges (>5,000 ha) and can travel large distances (~25 km) each night during foraging. Short-tailed bats require specific habitat consisting of good-quality forest vegetation, and have adapted to ground hunting. They are one of the few bats in the world that spends large amounts of time on the forest floor, using their folded wings as 'front limbs' for scrambling around.

6.2 Statutory Context

New Zealand bats are absolutely protected species under the Wildlife Act. It is an offence to catch alive or kill, hunt, possess, molest, or disturb bats under the Act. Any projects where tree or vegetation removal overlaps with the occurrence of bats, there is a risk of killing or injuring any bats that may be present.

6.3 Species Potentially Present

A review of data in DoC's bat database (accessed July 2023), found that there is a wide spread of long-tailed bat records across the East Cape. While most records are from more inland areas away from the coast, there are a number of records from coastal areas, and many records are within 25 km of the coast. There are few records for the short-tailed bat on the East Cape, with all being in forested areas well away from the coast. One record for short-tailed bat is close to the proposed Hikurangi Loop. Therefore there is potential for long-tailed bats to be present in trees within the full route of Te Ara Tipuna. There is also potential for short-tailed bats to be present in the area of the Hikurangi Loop.

6.4 Potential Effects on Bats

Removal or modification of trees that provide bat habitat in the footprint of Te Ara Tipuna has the potential to cause:

- Mortality or injury during felling;
- Habitat loss;
- Disturbance.

The highest risk of injuring or killing bats or trapping them within their roosts is when they are heavily pregnant, when young are still dependent on the roost (late November – February) and when bats are more likely to be in torpor (May – September).

During winter bats use torpor (a type of hibernation) more often than during other times of year, so if trees are cut down in winter, bats may be unable to rouse from torpor and to fly away in time to escape. Additionally, it is significantly harder, sometimes impossible, to detect bats roosting in trees during torpor. For these reasons, trees with potential bat roost features must not be cut down in winter. Bats also use torpor for short periods during summer, for example, if the weather gets cold, so the risk of killing or injuring bats that cannot escape falling trees exists at any time of the year.

6.5 Managing Effects on Bats

6.5.1 Assessment of trees for bat roost potential

Where trees greater than 15 cm Diameter at Breast Height (DBH) are proposed to be removed, a suitably qualified ecologist will inspect the trees to determine whether they have potential bat habitat. The steps for assessment are outlined in Table 3 below. Note that bats can roost in native or exotic vegetation – therefore it should not be presumed that exotic species such as pine trees will not support bats. Roosts have been found in many exotic species including, but not limited to, pine (*Pinus* spp.), poplar (*Populus* spp.), oak (*Quercus* spp.), acacia (*Acacia* spp.), black locust (*Robinia pseudoacacia*), willow (*Salix* spp.) and eucalyptus (*Eucalyptus* spp.).

If, following inspection, it is determined that there is potential bat habitat within a tree, then where possible the route should be altered to avoid removal or disturbance of that tree. If the tree is required to be felled or modified, then further assessment of the habitat or monitoring with Automatic Bat Detectors (ABMs) is required (note that this further assessment must be undertaken October – April during fine weather and when the temperature is 10^{o}C or greater).

Table 4. Does the vegetation proposed to be removed have potential bat roost characteristics? (adapted from DoC, 2021)

Step	Decision
1. Is the tree ≥ 15 cm DBH?	If yes, further assessment is required (step 2) If no, the tree is unsuitable bat roost habitat.
2. On visual inspection, does the tree (dead or alive) have features that indicate roost potential? These features include: • Hollows • Cavities • Knot holes • Cracks • Flaking, peeling and decorticating bark • Epiphytes • Broken or dead branches or trunk • Cavities / hollows / shelter formed by double leaders. This may require climbing the tree if you can't see all of it from the ground.	If yes, go to step 3. If unsure, further assessment is required. Use an approved person at Competency Level 3.3. If no potential roost features are present, the tree is unlikely to be suitable bat roost habitat, but if upon felling you find a bat, follow Section 6.5.3.
3. Does the tree have to be removed entirely?	If yes, continue to Step 4 to find out whether bats are currently roosting in the tree. If no, consider leaving the tree in place, cutting off specific limbs only or relocating the tree. If any felling or partial felling or tree relocation takes place you must proceed to Step 4.
4. Are bats currently roosting in the tree? (follow a, b or c or a combination)[6]	
a) are potential features being used by roosting bats? *(an approved person at Competency Level 3.3 or a tree climber working with an approved person at this level is to inspect these features)*	If yes, the tree MUST NOT BE FELLED until bats have vacated it. If no, the tree can be removed on the day of the tree inspection (following step 5). If bats continue to use the roost, then the tree must not be cut down until the bats leave the roost. Re-consider whether this tree must be felled and seek advice from DoC. *Note: this assessment can only be undertaken October 1st to April 30th when the temperature is 10 °C or greater.*
b) Is bat activity recorded using an Automated Bat Monitoring unit (ABM) at any time during two consecutive, valid survey nights preceding tree	If yes (bats are detected), survey must continue on subsequent nights until no bat activity is recorded for two consecutive nights (to indicate bats have left the area)

[6] Refer to DoC (2021) for more detailed methodologies for each of these steps.

Step	Decision
felling? At least two nights are required as it is possible for bats to enter or leave a roost without echolocating, or to not leave the roost for a night (*an approved person at Competency Level 3.1 should undertake this assessment)*	prior to felling. OR roost features of each tree must be visually assessed via climbing as in 4 a). If bat activity is consistent in the area and 2 nights with zero bat passes cannot be obtained, Go to 4c or 4a. If no bats are detected for two consecutive nights, the vegetation can be removed on the day immediately following the survey nights using the method in 5. *October 1st to April 30th and when conditions meet the requirements for standard ABM weather.*
c) Are bats observed entering the vegetation? This involves watching vegetation to identify bats returning to or exiting roosts. It should only be used in combination with previous ABM monitoring (4b). At least two nights are required as it is possible for bats to enter or leave a roost without being detected, or to not leave the roost for a night. (*an approved person at Competency Level 3.2 should undertake this assessment)*	If yes (bats are seen at either watch), it is a confirmed roost. Removal of a roost should be avoided to minimise effects of vegetation removal on bats. Techniques used previously to ensure previously active roosts are no longer active have included the following: Watches must continue on subsequent nights until no bats are observed entering or exiting the roost for two consecutive nights (to indicate the roost is no longer active) prior to felling. If no bats are observed entering or exiting for two consecutive nights, the vegetation can be removed on the day immediately following the survey nights using the method in 5. *October 1st and April 30th only AND when weather parameters meet*
Notes: Bat Competencies: 2.1 Bagging storage, handling, measuring, weighing, sexing, aging, temporary marking and releasing appropriately: For long-tailed bats: 50 individuals For short-tailed bats: 50 individuals 3. High risk activities – Roost felling: 3.1 Assessing roost tree use using Automatic Bat Monitors - Demonstrate correct timing, placement, and interpretation of data for 10+ times according to DOC's Tree Felling Protocols. 3.2 Undertake roost watches/emergence counts at 10+ occupied roosts where the entrance is visible. 3.3 In at least two different forest/habitat types, including the forest/habitat type where trees are going to be assessed: evaluate 10+ potential roost features in trees (e.g., cavities, peeling bark, epiphytes).	

6.5.2 Confirmed roost trees

If bats are confirmed within a tree via any of the methods in Step 4 above, it must not be felled and the following actions will be taken:

- The tree will be clearly marked, and the immediate area cordoned off with safety fencing and signage erected in a 10 m radius around the roost, alerting any person approaching the area that a bat roost is present and to stay clear.

- All relevant project staff will be briefed to ensure that the tree is not removed. The ecologist will determine whether all tree clearance works should be suspended or whether inspections and clearance can continue away from the roost.
- The project methodology will be reviewed to confirm whether removal or alteration of the tree can be avoided.
- If removal or alteration of the tree is required, further monitoring must continue using the methodologies in Step 4 above, until the ecologist can confirm that no bats are roosting within the tree.
- If the tree is a maternity roost tree removal works shall be scheduled to only occur within the period 1 March to 31 April inclusive.

6.5.3 Accidental discovery or mortality

If a bat is found during tree removal, the following procedures will be implemented:

- Felling of the tree must stop immediately if safe to do so, and DoC and an approved bat ecologist at Competency Level 2.1 must be consulted;
- If any bats are found on the ground or in the tree once felled, they should be placed in a cloth bag in a dark, quiet place at ambient (or slightly warmer) temperature and be taken to a veterinarian for assessment as soon as possible. A maximum of two bats should be kept in one bag. After delivering the bat to the vet, contact an approved bat ecologist at Competency Level 2.1 in consultation with the vet and DOC (0800 DOC HOT, 0800 362 468).
- If the bat is dead or has been euthanised by the veterinarian, it will be taken to the local DOC office as soon as practicable (required under the Wildlife Act).

Further details on these protocols can be found in DoC (2021).

6.5.4 Reporting requirements

A works-completion report would be prepared by the ecologist following completion of vegetation removal / works for submission as per resource consent requirements and bat records submitted to DoC for inclusion in the bat database.

7 AVIFAUNA (BIRDS) MANAGEMENT PLAN

7.1 Introduction

The purpose of this bird management plan is to identify and address actual and potential adverse effects on native birds associated with the construction of Te Ara Tipuna. It specifies the management measures required to minimise and mitigate anticipated adverse effects, which will be achieved through minimising clearance of potential bird nesting habitat, and where such habitat will be affected, using current best practice methodologies to avoid nesting birds.

7.2 Statutory Context

The provision of management to avoid, minimise and mitigate adverse effects on native wildlife and associated habitat is a requirement under the RMA and almost all native birds are legally protected under the Wildlife Act.

7.3 Species Potentially Present

A review of the local planning documents, wildlife databases (e.g. DoC databases, Bioweb, eBird and iNaturalist) and literature (Coleman, 2010) was undertaken to identify the native bird species potentially affected by the path (note that this is indicative only and further assessments will be undertaken at the detailed design stage). The birds potentially present in the area of the trail, their conservation status and brief notes on their habitats and where they nest are presented in Table 5. Note that this list is indicative only and further assessments of bird habitat would be undertaken at each design stage. The focus is on those birds that may nest or rely on habitat in areas that the trail may intersect, rather than, for example, seabirds that may be sighted in these areas but spend most of their lives and breed away from the areas of the path. Those that have an “At Risk” conservation status aren’t considered threatened, but could quickly become so if conservation management reduces, if a new threat arises, or declines continue unabated. Those with a “Threatened” conservation status have the greatest risk of extinction.

As much of the path is close to the coast, a variety of bird species present in coastal environments are expected to be present and have the potential to be affected, for example shags, dotterels, oystercatcher, gulls, terns, little blue penguins. Most of the native coastal bird species potentially present have an “At Risk” status, and the Caspian tern and reef heron have a “Threatened” status.

The path will pass close to wetlands or lakes in ponds in some areas. Birds that may be found in these areas include some “Threatened” species (e.g. Australasian bittern, grey duck and dabchick) and several “At Risk” species such as the royal spoonbill, marsh crake and the fernbird.

Where the path passes through forest habitats, birds usually associated with forested areas such as tūī, fantail, kereru, ruru, whitehead, grey warbler, bellbirds will potentially be present and more rarely “At Risk” species such as robins and kaka and Threatened species such as long tailed cuckoo may be present.

Birds that could be present in a variety of habitats include weka and New Zealand falcon, which have At Risk classifications and the Australasian harrier and kingfisher. In more open pastoral habitats, paradise shelduck, spur winged plover, pūkeko and the “At Risk Declining” pipit may be present.

Table 5. Native bird fauna potentially present along Te Ara Tipuna

Common name	Binomial name	Conservation status	Habitat type
Wide range of habitat types			
Kingfisher / kōtare	*Todiramphus sanctus vagans*	Not Threatened	Forest, river margins, farmland, lakes estuaries and rocky coastlines. Nesting October – January in holes/tunnels in trees, cliffs, banks and cuttings.
Weka	*Gallirallus australis greyi*	At Risk, Relict	Variety of habitats from the coastline to above the tree-line, including wetlands, rough pasture, shrubland, and native and plantation forests. Nest August-January in dense vegetation, usually under an object or within a burrow.
Pūkeko	*Porphyrio melanotus melanotus*	Not Threatened	Typically found near sheltered fresh or brackish water (e.g. vegetated swamps, streams or lagoons), especially adjacent to open grassy areas and pasture. Nest year round in nests often build near or over water.
Welcome swallow	*Hirundo neoxena neoxena*	Not Threatened	Most habitats except forested. Often close to coast or wetlands. Nesting on shaded ledges or man made structures August – February.
Australasian harrier / kāhu	*Circus approximans*	Not Threatened	Coastal fringe, estuaries, wetlands pine forest, farmland, high country. Nesting September to April in nests on the ground, in low bushes, long grass, scrub or wetlands.
New Zealand falcon / kārearea	*Falco novaeseelandiae*	At Risk, Recovering	Wide variety of habitats from coast to above the treeline, including forest, tussock, rough grazed hill country and pine forest. Nest August – May in a simple scrape in the ground with varying amounts of cover, on a ledge or within an epiphyte in a tree.
Black backed gull	*Larus dominicanus*	Not Threatened. Not protected under the Wildlife Act.	Coastal and inland non-forested habitats.
Coastal areas			
Little blue penguin, kororā	*Eudyptula minor*	At Risk, Declining	Coastal. Nest July – February close to the sea in burrows or in caves, rock crevices, under logs or in or under a variety of man-made structures. Nesting is followed by a moulting period, where individuals must remain dry on land while they complete their moult. Peak moulting is generally between January and March, but it can extend into April.
Variable oystercatcher	*Haematopus unicolor*	At Risk, Recovering	Coastal – variety of coastal habitats such as sandy beaches, sand spits, dunes, mud flats, paddocks. Nest October to March on sand or grassy areas or bare ground slightly inland.

Common name	Binomial name	Conservation status	Habitat type
New Zealand dotterel, tūturiwhatu	*Charadrius obscurus*	At Risk, Recovering	Coastal. Mainly breed August to February on sandy beaches and sandspits (usually near stream-mouths), some on shell banks in harbours, a few on gravel beaches. Nests simple scrapes in substrate.
Banded dotterel	*Charadrius bicinctus*	At Risk, Declining	Coastal. Nest July to January in riverbeds, herbfields, beaches and farmland.
White-fronted tern	*Sterna striata*	At Risk, Declining	Coastal and river beds. Nests October – January in large dense colonies on shingle river beds, sand dunes, stacks and cliffs (in a scrape in shingle, sand or bare rock).
Caspian tern / taranui	*Hydroprogne caspia*	Threatened, Nationally Vulnerable	Coastal – sheltered bays and harbours. Nesting in colonies or as isolated pairs September - January on open coastal shellbanks, sandspits, occasionally brained rivers. Nest a shallow scrape in sand or shingle.
Pied shag / Kāruhiruhi	*Phalacrocorax varius*	At Risk, Recovering	Coastal. Mainly forage in coastal marine waters, harbours and estuaries, some lakes and ponds. Nest August to March in trees along coastal cliffs year round, but peaking February-April and August-October.
Little shag / kawaupaka	*Microcarbo melanoleucos*	At Risk, Relict	Coastal and freshwater habitats including lakes, rivers, ponds, streams. Nest in trees over-hanging water, on ledges or sea cliffs.
Black shag / māpunga	*Phalacrocorax carbo*	At Risk, Relict	Coastal waters, estuaries, harbours, rivers, streams, lakes and ponds. Nest year round in trees or shrubs, on the ground in swamps, coastal cliffs and headlands and on artificial structures.
Red-billed gull / Tarāpunga	*Chroicocephalus novaehollandiae*	At Risk, Declining	Coastal. Nesting occurs mid-September to February in dense colonies, mainly restricted to the eastern coasts of the North and South Islands on stacks, cliffs, river mouths and sandy and rocky shores
Reef heron / matuku moana	*Egretta sacra*	Threatened, Nationally endangered	Coastal. Nest September - December in dark places low to the ground, e.g. in rocky caverns and under old bridges.
Royal spoonbill / kōtuku ngutupapa	*Platalea regia*	At Risk, Naturally uncommon	Estuaries and wetlands. Nests in colonies in the exposed canopy of tall kahikatea trees, on the ground near estuaries, rivers and harbours, in reeds, in low shrubs, and on steep rocky headlands
White faced heron / Matuku moana	*Egretta novaehollandiae*	Not Threatened	Rocky shores, estuary mudflats, lakes, ponds, damp pasture and sports fields. Usually nest in the tops of large trees like pine and macrocarpa as early as June.

Common name	Binomial name	Conservation status	Habitat type
Banded rail / Moho pererū	*Gallirallus philippensis*	At Risk, Declining	Mainly mangroves and saltmarshes in estuaries. Nest September to March on rough platform of rush and reed fragments, usually in jointed rush thickets.
Wetlands, lakes, ponds			
Marsh crake	*Zapornia pusilla*	At Risk, Declining	Freshwater and brackish wetland habitats. Small breeding population near Hicks Bay. Nests September to December concealed under sedges or in dense reeds
Spotless crake	*Zapornia tabuensis*	At Risk, Declining	Freshwater wetlands dominated by dense emergent vegetation, particularly raupo (Typha orientalis). May forage on open mud near dense vegetation. Nest August – February in wetland vegetation.
Fernbird / mātātā	*Poodytes punctatus*	At Risk / Declining	Wetlands – in dense vegetation. Nest Nov – Feb in dense vegetation, usually < 1m above ground or water.
Australasian bittern / matuku-hūrepo	*Botaurus poiciloptilus*	Threatened, Nationally critical	Wetlands. Nest August – May amongst dense wetland vegetation.
Pied stilt	*Himantopus himantopus*	Not Threatened	Coast and wetlands. Nest June to February on ground near water usually in colonies.
Grey teal / tētē-moroiti	*Anas gracilis*	Not Threatened	Freshwater lakes, lagoons and swamps. Nest June - January in tree hollows and on the ground under tall grasses.
New Zealand scaup / pāpango	*Aythya novaeseelandiae*	Not Threatened	Lakes. Nest October to March on the ground, well concealed, near the water.
New Zealand dabchick / weweia	*Poliocephalus rufopectus*	Threatened, Nationally increasing	Freshwater lakes and ponds. Nest June-March on freshwater lakes and pools, anchoring the nest to aquatic vegetation or building it in a small cave, partially underwater.
Australasian shoveler / kuruwhengi	*Spatula rhynchotis*	Not Threatened	Freshwater wetlands, estuaries, lakes. Nests October – February in long grass near water.
Black swan / kakīānau	*Cygnus atratus*	Not Threatened	Lakes, ponds, estuaries. Nest July - March on water's edge in large mound of vegetation.
Open habitats			
Paradise shelduck / pūtangitangi	*Tadorna variegata*	Not Threatened	Widely distributed on pastoral landscapes. Nest August - February in tree holes or tree bases, rock crevices, under buildings or debris piles.
Spurwinged plover	*Vanellus miles novaehollandiae*	Not Threatened. Not protected	Variety of open habitats with low vegetation. Nest June-November in a variety of open habitats such as

Common name	Binomial name	Conservation status	Habitat type
		under the Wildlife Act.	pasture, cropland, parks, wetlands, saltmarsh with a simple scrape on the ground.
New Zealand pipit / pīhoihoi	*Anthus novaeseelandiae*	At risk, declining	Rough open habitats from coast to alpine shrublands. Nest August-February under tussocks and grass clumps within fern, and partly or fully covered with vegetation.
Forest habitats			
Whitehead / pōpokotea	*Mohoua albicilla*	Not Threatened	Forest and shrubland. Nests September to January in tree forks, hidden in dense canopy vegetation
Fantail / pīwakawaka	*Rhipidura fuliginosa placabilis*	Not Threatened	Forest, scrub, gardens. Nests August - March in trees.
Grey warbler / riroriro	*Gerygone igata*	Not Threatened	Forest, scrub, gardens. Nests August to January in outer branches of trees 2-4m off ground, usually in small leaved trees such as manuka, kānuka and *Coprosma* spp.
Kererū	*Hemiphaga novaeseelandiae*	Not Threatened	Forest, shelterbelts, urban parks, and rural and suburban gardens. Nests year round, but mainly September – April, in trees.
Morepork / ruru	*Ninox novaeseelandiae*	Not Threatened	Forest and vegetation patches. Nests September – May in cavities of live or dead trees, broken logs, tree forks, epiphytes, holes in earth banks, among tree roots.
Silvereye / tauhou	*Zosterops lateralis lateralis*	Not Threatened	Widespread in most habitats. Nests August to February high in trees, shrubs and tree ferns.
Shining cuckoo / pīpīwharauroa	*Chrysococcyx lucidus*	Not Threatened	Forest and scrub, farmed and urban areas. Lay eggs in grey warbler nests.
Long-tailed cuckoo / koekeoā	*Eudynamys taitensis*	Threatened, Nationally Vulnerable	Native forest or scrub. Migratory. Lays eggs in nests of whitehead, brown creeper and yellowhead.
Tūī	*Prosthemadera novaeseelandiae novaeseelandiae*	Not Threatened	Forest, scrub, gardens. Nesting September to Febuary in nests high in trees in the canopy or subcanopy.
Bellbird / korimako	*Anthornis melanura*	Not Threatened	Forest, scrub, farm shelter belts, urban parks and gardens. Nest September – February in trees under dense cover.
Kaka	*Nestor meridionalis*	At Risk, Recovering	Native forest. Nest November to June high in trees.
North Island Robin / toutouwai	*Petroica longipes*	At Risk, Declining	Mature forest, tall scrub, and exotic plantations. Nest September to March on tree trunks; in trunk forks, at trunk-branch junctions, on epiphytes next to trunks

Common name	Binomial name	Conservation status	Habitat type
Tomtit / miromiro	*Petroica macrocephala*	Not threatened	All mature native forest types, regenerating forests, exotic plantations. Nest August to March in thick vegetation or shallow cavities.
Rifleman / tititipounamu	*Acanthisitta chloris*	Not threatened	Found predominantly in mature forest, especially beech, kauri, kamahi and podocarp forest. Nest August to February in enclosed spherical nests mainly within existing cavities like burrows, hollows, holes in buildings, rocks, trees.

7.4 Potential Ecological Effects on Avifauna

The route of Te Ara Tipuna intersects a variety of bird habitat types. Although much of the trail will utilise existing trail and road infrastructure, there may be some effects on native bird fauna. The potential effects as a result of construction works associated with the trail include:

- Direct removal or degradation of habitat used for nesting or foraging;
- Disturbance of nesting bird species during construction through noise or activity;
- Direct mortality of nesting birds and chicks.

7.5 Assessment of Avifauna Habitat Values and Effects

A review of aerial imagery, topography, site photos, and works plans for each stage should be undertaken initially by an ecologist to identify whether potential avifauna habitat as described in Table 5 above may be disturbed by the proposed work. If potential habitat is affected, or there is uncertainty, a site visit should be undertaken to confirm whether avifauna habitat is present, the ecological values and the potential magnitude of effect of the proposed works on those values in line with EcIAG methodology described in Section 3. Where the overall level of effect is considered to be moderate or higher prior to mitigation, measures need to be introduced to avoid effects through design, or appropriate mitigation needs to be addressed, and preparation of a stage specific Ecological Management Plan, including the effects management measures outlined in Section 7.6 below, will be required.

7.6 Managing Effects on Avifauna

7.6.1 Vegetation clearance

For all bird species, the most sensitive time of year (in regard to disturbance) is the nesting season. Therefore, as much as possible vegetation clearance should occur outside of the main bird breeding (September to March inclusive) to minimise any disturbance risk that vegetation removal would have on nesting birds.

If vegetation clearance is unavoidable during the main native bird nesting season, an experienced ecologist or ornithologist must visually inspect all trees and shrubs proposed for removal before, and no more than 24 hours prior to, felling or removal, to identify any active nests of indigenous birds. This includes checking cavities and hollows for nesting birds (e.g. morepork, kingfisher).

Should any nesting of indigenous birds be observed, a 10 m buffer of vegetation must be required to remain around the nest site until an experienced ecologist or ornithologist has confirmed that the nest has failed or the chicks have hatched and naturally left the nest site.

7.6.2 Coastal areas

Some coastal birds nest as early as July (e.g. banded dotterel) and can nest in inconspicuous scrapes in sand, gravel or grass. Where works are proposed in coastal habitats such as dunes, beaches and grassed foreshore areas that will disturb these areas (e.g. earthworks, construction of structures) from July to March inclusive, an experienced ecologist or ornithologist shall visually inspect the area prior to the proposed work to identify any active nests of indigenous birds. If bird nests are observed within 50 m of the proposed work, the ecologist or ornithologist will set up temporary fencing around the nest (at least 20 m from the nest)[7] and no works are to occur within the 20 m exclusion zone. The ecologist or ornithologist will continue to monitor the nest weekly and works can commence within the exclusion zone when either the nest has failed or the chicks have fledged.

The little blue penguin breeding season generally commences in July when adults begin searching for nest locations. Egg laying and chick rearing follow, with adults coming and going from nest sites until approximately late February. This is then followed by a moulting period, where individuals must remain dry on land while they complete their moult. Peak moulting is generally between January and March, but it can extend into April. As a result, there are few time periods where penguins are likely to be absent from coastal areas. Little blue penguin nests are situated close to the sea in burrows excavated by the birds or other species, or in caves, rock crevices, under logs or in or under a variety of man-made structures including nest boxes, pipes, stacks of wood or timber, and buildings. Therefore, where trail construction activities are likely to disturb such areas of habitat, immediately prior to works commencing, a penguin survey is to be conducted by an ecologist or ornithologist of the area within 10 m of the proposed works. If no penguins are found, a penguin exclusion fence should be erected around the perimeter of the works area. If penguins are found, in addition to erecting a penguin exclusion fence[8] around the perimeter of the works area, an area of at least 5 m radius around the nest or moulting penguin should be established, and fenced, providing direct unimpeded access for the penguins to reach the sea. The fence should remain in place, and the nest or moulting penguin undisturbed until the penguins have vacated. If a penguin should appear in the middle of the works site once works have begun, works within a 5 m radius of the penguin should cease immediately. The area should be fenced off while still providing direct unimpeded access for the penguins to reach the sea and all workers should be notified. DoC should then be notified.

7.6.3 Wetland and lake areas

The route of the trail has been designed to avoid clearing vegetation or undertaking earthworks or land disturbance within 10 m of a natural inland wetland, which mean that disturbance to birds associated

[7] Exclusion fencing for nesting birds like dotterel and oystercatchers is to ensure people and machinery do not enter the exclusion zone and should be constructed from materials that do not make the nest more conspicuous to avian predators or move in the wind, not obstruct the ability for birds or chicks to access the beach and water to forage.

[8] Penguin exclusion fencing is to keep penguins out of potentially suitable habitat that does not contain active nests or moulting birds during the works and should be constructed of materials suitable for excluding penguins

with wetlands should be avoided, as most wetland birds nest within wetlands. Removal of vegetation is also covered by the requirements in Section 4 above.

If wetland habitat will potentially disturbed by proposed works within the nesting season, then a nesting survey will be required as per Section 7.6.1 above.

7.6.4 Open areas

The New Zealand pipit has an "At Risk-Declining" conservation status and nests in rough open areas, such as under tussocks and grass clumps within fern, and partly or fully covered with vegetation from August-February. The ecological assessment for each stage should assess the potential for such habitat to be present within the works footprint using aerial images (or on the ground assessment if aerials do not provide sufficient information), and if works are to be undertaken within the breeding season then an ecologist must inspect the area immediately prior to works commencing. If a pipit nest is identified within 50 m of the proposed works, then a 20 m exclusion fence will be installed to exclude people and machinery. The ecologist or ornithologist will continue to monitor the nest weekly and works can commence within the exclusion zone when either the nest has failed or the chicks have fledged.

7.6.5 Accidental discovery or mortality

Where a bird nest is identified during works, works will stop until an ecologist has inspected the nest to determine whether it is active and of a native species.

Where an injured bird is observed during works:

- Works will stop until an ecologist can assess the injured bird and
- The local DOC office or DOC hotline (0800 362 468, if after hours) will be contacted no longer than two hours after the injured or dead bird is found
- Injured native birds will be taken immediately to a vet approved by DOC for assessment
- Birds will be placed in a cool, dark, material-lined box/bag by or under the direction of a project ecologist to ensure the bird is handled appropriately

7.7 Reporting

Where avifauna management is required through a stage specific EMP, a completion report would be prepared by the ecologist following completion of works as per resource consent requirements.

8 FRESHWATER ECOLOGY MANAGEMENT PLAN

8.1 Introduction

The purpose of this Freshwater Ecology Management Plan (FEMP) is to help guide the assessment of actual and potential adverse effects on freshwater habitats such as streams, rivers, lakes and wetlands due to the construction and operation of Te Ara Tipuna. It provides information on identifying smaller streams and wetlands within the proposed path that may not have been already identified, comments on the potential effects of the path on freshwater environments and gives guidance on ways that the potential ecological effects can be mitigated.

Freshwater effects and mitigation are also considered in the following chapters of this EMP and other plans:

- Te Ara Tipuna Trailway Construction Management Plan (CPS 2023) which covers construction methodologies to avoid or minimise impacts on freshwater environments
- Avifauna Management Plan (Section 7)
- Section 10 Sediment, Erosion and Discharges

8.2 Statutory Context

Legislation affords protection to native freshwater fish. The Freshwater Fisheries Regulations 1983 and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 requires fish passage to be provided past structures like culverts.

Native freshwater fauna salvage requires a Ministry for Primary Industries (MPI) Special Permit under Section 97 of the Fisheries Act 1996. An authorisation from Fisheries New Zealand is required under section 26ZM (2) (a) of the Conservation Act 1987 to transfer any freshwater aquatic life to an appropriate freshwater waterbody in the same catchment. DoC approvals are also required to transfer fish to public conservation land and for electric fishing.

A WAA is required to capture, handle, and relocate Hochstetter's frogs.

The relevant regional plans also contain rules and standards relating to structures and works within watercourses and wetlands.

8.3 Habitats and Species Potentially Present

Over the 500 km path, there will be many stream and river crossings and wetlands present close to the track of the path. Whilst the initial design of the track has been designed to avoid significant wetland ecosystems identified in local planning documents and utilises many existing stream and river crossing structures, there are likely to be smaller wetlands and streams that have not yet been identified and that will need to be considered at the detailed design phase.

Wetlands have been significantly affected by land use changes in New Zealand over the last 150 years, with approximately 90% of them having been lost through draining, burning and clearing of vegetation for farmland and reclamation for urban and industrial uses. There are a variety of different wetland types, with the main ones in New Zealand being bogs, fens, swamps, marshes and shallow water.

Wetlands potentially contain a range of at risk or threatened bird and lizard species as identified in Sections 6 and 7 above.

Streams and wetlands in the East Cape area are known to contain a variety of fish species. A review of the NZ Freshwater Fish Database (accessed 16/8/2023) found a number of native freshwater fish species within 10 km of the proposed pathway. A search of the DoC herpetofauna database (22/04/2024) also found a number of records for Hochstetter's frogs in streams close to the route of the path. This identified a number of Threatened or At Risk species potentially present near the route of the Te Ara Tipuna. The species found are summarised in Table 6.

Table 6. Native fish and amphibian fauna found within 10 km of Te Ara Tipuna

Common name	Binomial name	Conservation status[9]	Habitat type[10]
Black flounder	*Rhombosolea retiaria*	Not Threatened	Estuaries, lowland lakes and lower reaches of rivers
Common smelt	*Retropinna retropinna*	Not Threatened	Shoals and open water in rivers and streams, mainly at low elevations
Lamprey	*Geotria australis*	Threatened, Nationally Vulnerable	Adults hide in crevices under large rocks, larvae / juveniles bury themselves in sand. Climber.
Long-finned eel	*Anguilla dieffenbachii*	At Risk - Declining	Rivers, lakes and headwaters, rare in swamps. Strongly associated with in-stream cover.
Short-finned eel	*Anguilla australis*	Not Threatened	Lowland swamps, lakes and slower areas of streams and rivers.
Inanga	*Galaxias maculatus*	At Risk - Declining	Backwaters or gently flowing areas of lowland rivers, lakes and streams. Climber.
Banded kokopu	*Galaxias fasciatus*	Not Threatened	Small, overgrown, tannin stained streams, often in lowland wetlands or swampy forest. Climber.
Short jawed kokopu	*Galaxias postvectis*	Threatened, Nationally Vulnerable	Pools in cascading boulder streams with forest cover.
Giant kokopu	*Galaxias argenteus*	At Risk - Declining	Gently flowing or swampy pools, streams and lake edges with thick riparian vegetation.
Koaro	*Galaxias brevipinnis*	At Risk - Declining	Favours clear, small to medium-sized cobble streams. Moderate to fast flowing, with canopy shading.
Torrentfish	*Cheimarrichthys fosteri*	At Risk - Declining	Riffles during the day, emerging at night to feed in slower water.
Common bully	*Gobiomorphus cotidianus*	Not Threatened	Prefers slower water, common in lakes.
Cran's bully	*Gobiomorphus basalis*	Not Threatened	Inland cobbled streams.
Bluegill bully	*Gobiomorphus hubbsi*	At Risk - Declining	Swift, shallow riffles in large gravels rivers.

[9] Dunn *et al.*, 2017

[10] McQueen, 2013

Common name	Binomial name	Conservation status[9]	Habitat type[10]
Red finned bully	*Gobiomorphus huttoni*	Not Threatened	Typically found near the coast. Can climb and penetrate inland.
Giant bully	*Gobiomorphus gobioides*	At Risk – Naturally Uncommon	Lower reaches of waterways. Hides beneath logs and vegetation during the day.
Hochstetter's frog	*Leiopelma hochstetteri*	At Risk - Declining	Small forested streams and wet seeps with plentiful rocky/woody debris. The DoC database shows a number of records from streams near to the coast on the western and northern sides of East Cape and in the Hikurangi area.

8.4 Potential Freshwater Ecological Effects

Potential adverse effects on freshwater habitats during construction of Te Ara Tipuna include:

Direct effects:

- Mortality or injury of instream fauna during stream works
- Discharge of contaminants such as sediment, wet concrete or from machinery during works close to wetlands or streams

Indirect effects:

- Loss of habitat
- Changes to hydrology in wetlands or watercourses
- Increased erosion and discharge of sediment in the longer term
- Barriers to fish passage
- Temporary noise disturbance
- Disturbance of fauna species (e.g. birds, lizards) close to wetland areas

8.5 Assessment of Freshwater Ecological Values and Effects

A review of aerial imagery, topography, site photos, and works plans for each stage should be undertaken initially by an ecologist to identify whether the proposed works and path come close to or cross potential wetlands, streams or rivers or whether there is potential for discharges from works or toilets close to these environments. If potential freshwater features are affected, or there is uncertainty, a site visit should be undertaken to confirm the ecological values of the freshwater environments and the potential magnitude of effect of the proposed works on those values in line with EcIAG methodology described in Section 3. Where the overall level of effect is considered to be moderate or higher prior to mitigation, measures need to be introduced to avoid effects through design, or appropriate mitigation needs to be addressed, and preparation of a stage specific Ecological Management Plan, including the effects management measures outlines in Section 8.6 below, will be required.

8.6 Managing Effects on Freshwater Environments

8.6.1 Identification and assessment of freshwater environments that may be affected

Streams

During the detailed design stage for each section of the path, it is important that all potential stream and river crossings are reviewed by an ecologist, including small intermittently flowing streams, to assess for potential disturbance to instream habitat[11]. Small streams in particular may not have been identified during the initial design phase and can provide important habitat for fish and Hochstetter's frogs.

Wetlands

While larger wetland areas have been identified and avoided during the initial design phase, it is possible that there are smaller wetland areas present. These need to be identified by the project ecologist in the detailed design stages so that the route can be modified to avoid them. It may also be necessary to delineate and mark on site wetland edges to ensure that no construction occurs within them and that a 10 m buffer is maintained.

Potential wetland areas should be assessed in accordance with wetland delineation protocols (MfE 2022a, Clarkson 2014) and pasture exclusion methodology (MfE 2022b), to determine whether they met the regulatory definition of 'natural inland wetland' (NPS-FM 2020). Potential wetland areas are assessed based on the prevalence of certain vegetation species and their indicator status ratings, as defined in Clarkson et. al. (2021):

- Obligate wetland (OBL) vegetation, which almost always is a hydrophyte (a plant which only grows in wet environments), rarely found in uplands (non-wetland areas).
- Facultative wetland (FACW) vegetation, which usually is a hydrophyte but can occasionally be found in uplands.
- Facultative (FAC) vegetation, which is commonly either a hydrophyte or non-hydrophyte.
- Facultative upland (FACU) vegetation, which is occasionally a hydrophyte but is usually found in uplands.
- Upland (UPL) vegetation, which is rarely a hydrophyte and is almost always found in uplands.

Where the dominance or prevalence tests show unclear results, hydric soils and hydrology tests should be undertaken in accordance with methodology outlined in MfE (2022a) and Clarkson (2014).

Wetland assessments should also include identifying native and exotic vegetation species, examining the structural tiers within wetland areas, and assessing the quality and abundance of aquatic habitats. Signs of wetland degradation such as pugging and grazing from stock access, structures such as culverts impeding hydrological function, and weed infestation should also be noted.

8.6.2 Stream crossings

Avoidance of instream habitat disturbance

Construction near stream beds and rivers should be minimised as much possible. Where new stream or river crossings are proposed (or alteration to existing crossings), bridges are the preferred methodology

[11] Streams are to be classified in accordance with the relevant council plan definitions.

to minimise the effects on ecology. This will minimise the need for any works within watercourses, except perhaps for the installation of bridge piles.

Culvert design for fish passage

Many of our native fish species have to travel between marine and freshwater environments to complete their life-cycle, i.e., they are diadromous. The majority of the most widespread native fish species that occur in New Zealand's waterways have larvae that rear in the sea and then migrate back into freshwater as juveniles. Their adult populations are, therefore, dependent on the success of the annual upstream migrations of juveniles.

Swimming is the primary mode of movement, however, some species have developed additional modes to help them overcome natural obstructions such as waterfalls and rapids. In New Zealand, several of our native fish species, e.g., eel, banded kōkopu and kōaro, are excellent climbers as juveniles. This allows them to negotiate some obstacles, such as waterfalls, as long as a continuous wetted margin is available for them to climb and access habitats far inland and at relatively high elevations.

If bridges in some circumstances are not suitable and culvert installation is required, design needs to take into account instream fauna. Culverts have the potential to restrict fish passage to upstream habitats if constructed poorly. If culverts are required to be installed on streams with potential fish habitat, they should be constructed to be 'fish-friendly' and in accordance with the New Zealand Fish Passage Guidelines (Franklin *et al*., 2018). Figure 3 gives a basic description of fish friendly culvert design. Where culverts are proposed, a freshwater ecologist will need to assess the potential for fish habitat within the footprint and upstream to assess whether fish passage provision and fish rescue is required and be involved in culvert design to ensure that passage is provided where appropriate.

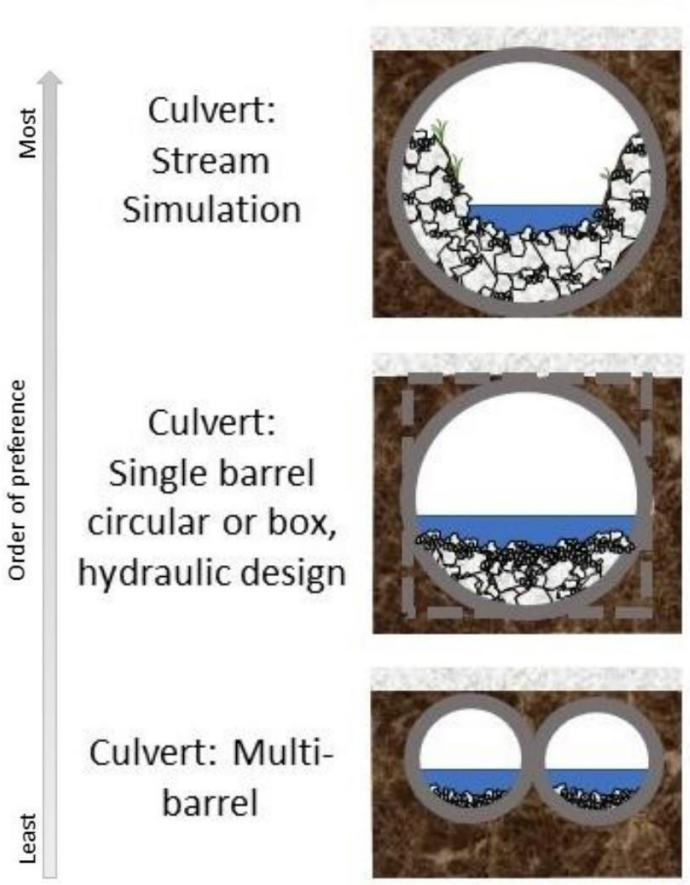

Figure 3. Order of preference for culvert design, based on the degree of connectivity for native fish each design facilitates (modified from Franklin et al., 2018).

8.6.3 Wetlands

The route of Te Ara Tipuna has been designed to avoid coming within 10 m of wetlands, and it is intended that in the detailed design phase any wetlands not already identified will be avoided. In the unlikely situation where adverse effects on wetlands cannot be avoided the value, magnitude and scale of effects will be ascertained during the ecological survey and assessment. Any residual significant adverse effects will be appropriately addressed using the mitigation hierarchy and detailed in the EMP.

8.6.4 Fish relocation

Where it is not possible to avoid disturbance to potential fish habitat (e.g. if a culvert is proposed to be installed), fish salvage and relocation will be required. Salvage will be conducted by a suitably qualified and experienced freshwater ecologist and the required permits will be put in place. Alternative methods can be used to those detailed below. Any use of alternative methods will need to be detailed in the finalised EMP for each stage.

Timing

Fish salvage and relocation will be undertaken immediately prior (within 2-3 days) to the commencement of any instream works.

Fish are generally easier to capture when temperatures are warm, and therefore salvage is best undertaken between December and April inclusive (Joy *et al*., 2013). Additionally, for intermittent streams, stream works undertaken in summer when the streams may be dry would reduce potential effects on fish.

Fish recovery and stream works should be undertaken during a fine weather window. This makes capture of fish easier and reduces the risk of exclusion devices and nets being compromised by periods of high stream flow.

Exclusion devices

Prior to commencing fish salvage, temporary barrier/s will be installed to prevent fish moving into the area of works. The locations of the exclusion screens will be agreed with the earthworks contractor and project freshwater ecologist.

Exclusion devices will be constructed from steel warratahs and shade cloth, or similar. Shade cloth, or a similar material, allows water to continue to flow downstream while preventing fish passage. The exclusion screen will extend at least one metre past the wetted widths of the aquatic habitat and will be embedded into the dry ground or the banks (Figure 4).

Warratahs will be securely hammered into the ground and evenly spaced across the stream to support the shade cloth. Where extra support is necessary, i.e. if the flow is very swift, wire will be threaded horizontally across through the warratahs. Shade cloth will be fastened to the warratahs and wire supports (where applicable) using zip ties. The shade cloth will extend approximately 0.5 m above the water level. Along the stream bed the shade cloth will either be embedded and pinned or securely weighted down, or an apron of the shade cloth will be formed and pinned. This creates a pocket, preventing fish from passing under the barrier.

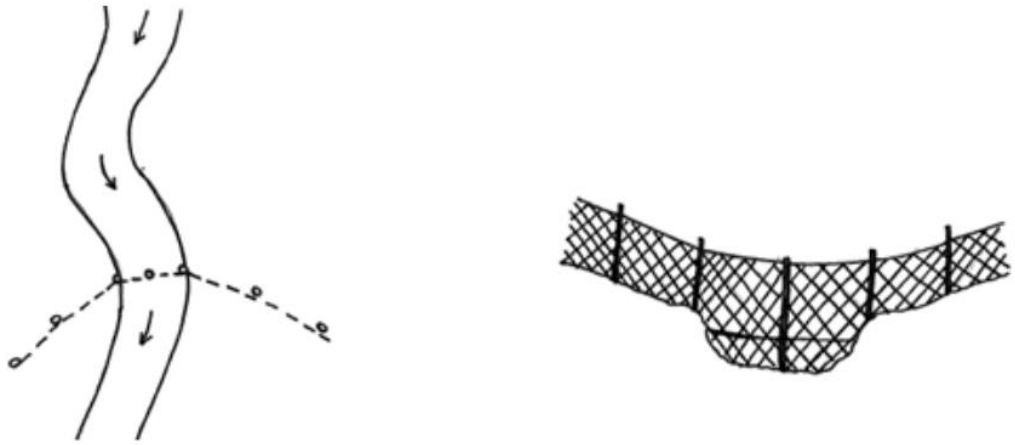

Figure 4. Sketch showing fish barrier installed in a stream to prevent passage into or out of an area.

Ongoing maintenance of the temporary fish barriers by the contractors will be undertaken until stream works are complete.

Fish capture

Fish capture methodologies will depend on the water depth and area of wetted habitat. The *New Zealand Freshwater Fish Sampling Protocols* (Joy *et al*. 2013) will be followed unless specified within this plan.

Baited Gee's-minnow traps and fyke nets will be placed at intervals over the stream works area and left in place overnight. Fine meshed fykes with a separator grill will be used. All nets and traps will be set with an airspace to provide trapped fish access to atmospheric oxygen and will be set in general accordance with the New Zealand Freshwater Fish Sampling Protocols (Joy *et al.* 2013). Floats placed in

the fyke nets if required to ensure an airspace is available. The traps will be checked the following morning, with any captured fish recovered.

Trapping densities will be set, at minimum, one fyke net and two Gee's-minnow traps over 25 m as per Joy *et al.* (2013). However, if sufficient length and depth of water is present, the densities of traps and nets should be increased as the purpose of the trapping is fish recovery. If native fish with a conservation status of "Threatened"or "At Risk" are captured, trapping will continue until no further "Threatened" or "At Risk" individuals are captured.

Where water depth prevents fykes being set, the densities of Gee-minnow traps will be increased and hand-netting of any aquatic habitat (e.g. pools, overhanging vegetation, woody debris) will be undertaken. Hand netting will occur moving up the impact reach to sweep for any fish present within the channel which may not be able to move into the traps due to the shallow water depth. Hand netting will cease when less than two indigenous fish are captured. If water depths are not suitable for Gee's-minnow traps, hand netting will still occur.

A minimum of two electric fishing passes/runs within the target area will be carried out over the trapping period, where stream conditions are suitable for this method. Electric fishing shall be undertaken using an electric fishing machine (EFM 300). When used correctly, the EFM 300 temporarily stuns the fish, allowing them to be caught without damage. At least one electric fishing pass will be undertaken prior to setting any traps or nets and at least one other electric fishing pass will be undertaken following the clearing the traps/nets for the final time. If native fish with a conservation status of "Threatened" or "At Risk" are captured, electric fishing will continue until no further "Threatened" or "At Risk" individuals are captured.

If more than ten native fish are caught during a single trapping effort within the target area, trapping will continue until numbers are depleted to the satisfaction of the ecologist completing the fish salvage and relocation (using an 80% removal rate as a target, based on the Hayne's (1949) regression method). A single trapping effort is considered to be one night of trapping.

Dewatering and muck out

Dewatering will commence provided that the electric fishing minimum performance standards have been met. All pumps used for dewatering will be appropriately screened to prevent fish being entrained in the pump. Screens will have gaps no larger than 3 mm. Native fish, such as eels (*Anguilla* spp.), will burrow into silt substrates when they are disturbed or as water levels decrease. As a result of this, during the dewatering stage, a freshwater ecologist will be present to search through drained habitat, rocks/debris, remaining pools or thick sediment for any remaining fish. Once dewatering is completed an excavator will be used to carefully scrape out any thick layers of sediment, if necessary. Any sediment removed from aquatic habitat will also be manually checked by the freshwater ecologist.

Handling of fish

Fish handling will be in accordance with Section 3.9 of the *New Zealand Freshwater Fish Sampling Protocols* (Joy *et al.* 2013) and the relevant permits.

All fish captured in traps/nets or via electric fishing, will be immediately transferred to waterfilled, lidded containers of an appropriate volume for the number of fish captured. Multiple containers will be used if necessary. Containers will be stored in the shade. Fish will be stored in the containers for no more than one hour. If storage for longer is required, water will be changed at least once per hour

and/or a battery powered air pump will be placed in each container to ensure oxygen levels are sufficient. A water conditioner, such as API stress coat may be added to the water to reduce fish stress. Water conditioner will be added as per manufacturer instructions.

If any individual captured fish shows signs of stress (loss of righting response, exuding excessive mucus, gulping air, and or mouth gaping) the water will be changed to provide more oxygen, or the fish will be moved to the relocation site immediately.

Fish will be visually examined for general health (visual skin lesions or heavy fungal burdens) and if considered unhealthy by an appropriately qualified freshwater ecologist, they will be humanely euthanized in accordance with the conditions of the relevant permits.

Large eels (> 500 mm) will be contained individually to avoid injury to other smaller captured fish. Kōura, if present, will also be separated into their own containers.

Captured fish will be securely transported to the relocation site and gently transferred into the stream within two hours of being captured. If large numbers of fish are captured, they will be distributed across multiple release points in the general area to avoid short term overstocking and predation risks.

Relocation sites

All native fish captured will be relocated on the day of capture to suitable alternative habitat. Fish will ideally be relocated to the same waterway into habitat judged suitable by the freshwater ecologist, either up or downstream of the site. If necessary, relocation could be to another stream within the same catchment, as long as the conditions of the permits are met.

Biosecurity

All equipment will be thoroughly cleaned and dried prior to their use. Equipment includes but not limited to; electric fishing machine, waders, fykes nets, Gee minnow traps and transfer buckets. Any pest fish caught will be humanely euthanized and all euthanized pest fish will be disposed of in accordance with the conditions of the relevant permits.

Adaptive management

Due to the high level of intrinsic variability in any fish recovery and relocation, this plan may be slightly modified by an appropriately qualified freshwater ecologist to ensure fish are recovered in a safe and professional manner, as well as in accordance with the New Zealand Freshwater Fish Sampling Protocols (Joy *et al*. 2013).

Records and reporting

For all native freshwater fauna the following information will be recorded:

- Date and time of capture and release;
- Capture method;
- Capture and release locations (GPS coordinates); and
- Number and size of individuals of each species released.

Reporting requirements for any MPI Special Permits, Fisheries New Zealand authorisations, DoC approvals or resource consents held will be adhered to. Details of those reporting requirements, such as

who to report to and reporting frequency, are permit-specific and can be found in each relevant permit or consent.

All records of native fish captured will also be sent to NIWA for inclusion in the New Zealand Freshwater Fish Database.

8.6.5 Hochstetter's frog relocation

Where disturbance to potential Hochstetter's frog habitat is unavoidable, then a suitably qualified and experienced herpetologist / ecologist with the required DoC permits should be consulted to further assess the potential habitat and develop a salvage plan where frogs may be present.

9 COASTAL ECOLOGY MANAGEMENT PLAN

9.1 Introduction

The purpose of this Coastal Ecology Management Plan (CEMP) is to help guide the assessment of actual and potential adverse effects on coastal habitats such as dunelands, beaches, estuaries and coastal wetlands due to the construction and operation of Te Ara Tipuna.

Coastal effects and mitigation are also considered in the following chapters of this EMP and other plans:

- Te Ara Tipuna Trailway Construction Management Plan (CPS 2023) which covers construction methodologies to avoid or minimise impacts on coastal environments
- Section 4 Vegetation Management Plan
- Section 5 Lizard Management Plan
- Section 7 Avifauna Management Plan
- Section 10 Sediment, Erosion and Discharges

9.2 Habitats and Species Potentially Present

Habitats present in the coastal areas that the path may potentially traverse include:

- Sand dunes;
- Beaches;
- Foreshore areas;
- Estuaries;
- Coastal wetlands.

Coastal habitats have generally been significantly modified over time by loss of their natural vegetation cover and development. These habitats support a variety of fauna and flora, including a number of nationally vulnerable and "At Risk" species. Some of these species have been identified and addressed in Sections 5 (lizards) and 7 (birds) in this report. Others, such as the katipō (*Latrodectus katipo*, At Risk - Declining[12], protected under the Wildlife Act), which occurs in sand dune systems under drift wood or associated with coastal grasses, and the spawning grounds of īnanga (a whitebait fish species that spawns in the margins of estuarine areas[13]), have not been addressed specifically in other sections.

9.3 Potential Coastal Ecological Effects

Potential adverse effects on coastal habitats during construction of Te Ara Tipuna include:

Direct effects:

- Mortality or injury of coastal fauna during stream works;
- Discharge of contaminants such as sediment during works.

[12] Servid *et al.* (2020)

[13] Inanga lay their eggs in the base of long, dense grasses and other thick vegetation near the high spring tide level around the saltwater wedge in the mouths of rivers and streams

Indirect effects:

- Loss of habitat (e.g. sand dune vegetation, driftwood, īnanga spawning areas);
- Increased erosion in the short and long term;
- Temporary noise disturbance;
- Disturbance of fauna species (e.g. birds, lizards, katipō) through construction and track use.

9.4 Assessment of Coastal Ecological Values and Effects

During the detailed design stage for each section of the path, it is important that the route and the areas of proposed works and construction are reviewed to identify habitats that may be disturbed, including:

- Previously identified areas of ecological significance;
- Sand dunes;
- Beaches;
- Riparian margins of estuaries (including potential inanga spawning habitat);
- Coastal wetlands.

If potential coastal habitat features are affected, or there is uncertainty, a site visit should be undertaken to confirm the ecological values of the coastal environment and the potential magnitude of effect of the proposed works on those values in line with EcIAG methodology described in Section 3. Where the overall level of effect is considered to be moderate or higher prior to mitigation, measures need to be introduced to avoid effects through design, or appropriate mitigation needs to be addressed, and preparation of a stage specific Ecological Management Plan, including the effects management measures outlines in Section 9.5 below, will be required.

9.5 Managing Effects on Coastal Environments

9.5.1 Avoid and minimise works within the coastal environment

Works and construction within or near to important coastal habitat such as sand dunes, coastal wetlands, and the riparian margins of rivers and estuaries are to be minimised as much as possible by utilising existing accessways and paths and routing the path around ecological features and revising proposed works where ecological effects are likely to occur.

9.5.2 Mitigate potential effects

Where works are required within these areas, a variety of mitigation measures will be used where appropriate, including:

- Implementation of fauna management plans for birds and lizards where their habitat is potentially disturbed;
- Implementation of the vegetation management plan where vegetation is to be removed or disturbed;
- Measures to control erosion and sediment and other discharges;
- Avoiding works within potential īnanga spawning habitat;

- Leaving a 10 m buffer zone where possible around areas of interest identified through the ecological survey;
- Marking areas that must be avoided on site prior to construction.

Once sections of track are completed, education of track users will be important to ensure that ecological values remain intact, such as avoiding bird nesting areas, staying on the track and expected track behaviour. This is proposed to be achieved through implementation of a passport system for track users.

10 EROSION, SEDIMENT AND DISCHARGES

Construction near streams, rivers and the coast has the potential to release contaminants such as sediment into these water bodies or affect stormwater flows and hydrology. The Construction Management Plan (CPS, 2023) outlines the following ways effects such as these will be minimised and mitigated:

- Keeping earthworks to a minimum overall.
- Minimising construction near streams, rivers, wetlands and the coast as much as possible. If required to complete work adjacent to these environments, construction methodology will meet all permitted standards and follow best practice guidelines.
- Preservation of natural drainage channels and allowing flow paths to continue at pre-development levels.
- Use of compostable toilets that are fully contained and do not produce any discharges.
- Location of toilets away from drainage channels and watercourses.
- Disposal of wastewater from hut basins and sinks in septic fields following local authority guidelines.
- Sediment control installed prior to significant earthworks commencing and particularly in areas close to water bodies. Including silt fences, diversion bunds, grassing finished areas immediately following final contouring, monitoring and maintenance.
- Erosion control such as riprap where required.
- Prior to working within 20 m of a water body, all machinery to be checked for leaks. All refuelling should be carried out on a hard sealed surface and more than 20 m from a watercourse.
- Work within wetlands avoided.

In addition to the above, it is important that no concrete contaminated runoff or slurry enters streams, rivers or the sea, such as when piles for board walks or bridges are being installed. Any water that comes into contact with unset concrete, concrete fines, concrete dust or concrete washings becomes highly alkaline and will burn and kill all fish, aquatic insects and plants that come into contact with it. Construction methodologies will need to be developed and applied to address this risk.

During each detailed design stage, the project ecologist should review plans for erosion and sediment control, proposed locations of toilets and any proposed works in close proximity to watercourses and the coast to identify any issues with regards to potential ecological effects. Any further recommendations identified by the ecologist should be included in the site specific EMP.

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Appendix A
Areas of Ecological Significance Potentially Affected

TEC and Atkins (2023) reviewed areas of ecological significance identified in the relevant council plans and other areas managed outside of council plans (Te Tapuwae O Rongokako Marine Reserve – Pouawa, Ngā Whenua Rāhui Kawenata covenanted areas and QEII National Trust covenanted areas) to identify any potentially affected by Te Ara Tipuna. While the proposed alignment avoids most of those areas, a number were identified as being potentially affected. Table A describes each of the sites and summarises the mitigation measures proposed to address these effects.

Table A. Ecological areas of high ecological value potentially affected by Te Ara Tipuna and summary of mitigation measures proposed (summarised from TEC & Atkins, 2023).

Name	Description	Potential level of effect without mitigation	Potential level of effect with mitigation	Mitigation proposed
Waipare and Nuhiti Q Scenic Area (G11) Ngā Whenua Rāhui Kawenata, Tairawhiti Resource Management Plan Protected Natural Area (WP7)	Primary and secondary forest and kānuka regenerating bush areas.	Moderate	Low	Site visit prior to construction. Track location to avoid mature trees and the covenanted area. Ecological survey to determine species of significance on proposed track. Appropriate construction techniques to avoid impact on secondary growth forest. Replanting of ecosourced trees in areas identified as appropriate.
Tawhiti Tairawhiti Resource Management Plan Protection Management Area (WR19)	Most of the area is occupied by quality secondary forest dominated by kanuka. Highly modified remnants of the original forest, mainly tawa, kohekohe, and puriri.	Moderate	Low	Site visit prior to construction. Track location to avoid mature trees. Ecological survey to determine species of significance on proposed track. Appropriate construction techniques to avoid impact on secondary growth forest. Replanting of ecosourced trees in areas identified as appropriate.
Te Koau Tairawhiti Resource Management Plan Protection Management Area (PR1)	Very high value Provides the only continuous latitudinal sequence from coastal and lowland to lower-montane and upper-montane vegetation types in	Moderate	Low	Site visit to inform detailed track design. Ecological survey. Track design to avoid mature trees and areas of significance identified in survey. Appropriate track construction methods. Replanting of ecosourced

Name	Description	Potential level of effect without mitigation	Potential level of effect with mitigation	Mitigation proposed
	the District. Best representative examples of Tawa-puriri and puriri-pohutakawa-tawa forests in the District. This 1250 ha area is of high significance			trees in areas identified as appropriate.
Hikurangi Tairāwhiti Resource Management Plan Protection Management Area WR125	This is a 1128 ha area separated into two units, both units are of high significance. Tawa-dominant forest at low altitudes. At midaltitudes rimu/tawa/red beech dominate Beech forest dominates at treeline. Alpine herbfield and fellfield congregate around the summit.	Low	Low	Site visits and ecological surveys to inform detailed design phase.
Whangara Beach Tairawhiti Resource Management Plan Marine Area of Significant Conservation Value WR55		Moderate. Proposed track alignment transitions from the beach close to the area of significance	Low	Track alignment on beach via unformed track (no construction proposed on dune environment). Where track transitions from the beach the dune environment will be avoided and appropriate construction techniques employed. Construction timed to avoid dotterel nesting season. Pre-construction site visit.
Whangaparaoa Dunefield (G11) Bay of Plenty Regional Coastal Plan ONFL 38; Opotiki District Plan ONF 19	An extensive coastal duneland with intact cover of vegetation, wetlands and river system backing a long open beach.	Moderate	Low	Site visit and detailed design recommended to ensure that construction does not impact areas of significance, such as through sediment runoff. 10 m buffer for wetland included in design.
Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point	Largely intact coastal headland extending from Tokata Point including the immediate rocky stoney shoreline along to Ohae	Moderate	Low	Site visit to inform detailed design to limit vegetation clearance, appropriate track material and construction methods.

Name	Description	Potential level of effect without mitigation	Potential level of effect with mitigation	Mitigation proposed
Bay of Plenty RC Regional Coastal Environment Plan ONFL 33, Opotiki District Plan ONF 14	Point. The area includes steep coastal escarpments and raised coastal plateau			
Motu River Mouth Bay of Plenty RC Regional Coastal Environment Plan ONFL 32, Opotiki District Plan ONF 13	The Motu River remains an unmodified feature of the coastal edge, with its vegetation cover a mixture of native and exotic species. The river patterns are constantly changing, with the river mouth forming a shingle barrier between the coastal waters and the river course.	Low	Low	Measures to ensure sediment does not enter the waterway during construction.
Oruaiti Beach, offshore rocks and Waikanapanapa Cliff – Bay of Plenty Regional Coastal Plan ONFL 37; Opotiki District Plan ONF 18	The area extends from the rocky shoreline west of Oruaiti Beach to incorporate beach, associated dunes, rocky headland of Te Ahikehe Point and the shoreline east of Waikanapanapa.	Moderate	Low	Site visit and detailed design to ensure construction does not impact area of significance.

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Appendix 21:

MACAA Consultation

12 November 2024

TE ARA TIPUNA WALKWAY: RESOURCE CONSENT APPLICATION

Tena koe, tena koutou, otira tena tatou katoa, i runga i nga tini ahuatanga o te wa.

I am writing on behalf of Te Ara Tipuna Charitable Trust to advise you of our resource consent application for a pedestrian track (Stage 1) of Te Ara Tipuna from Te Toka-a-Taiau (Gisborne) to Tarakeha (Opotiki).

The Trust has assessed the proposed Ara under the *Marine and Coastal Area (Takutai Moana) Act 2011*. We have found no direct overlap with any customary marine title or protected customary right application or order areas. However, we understand that you have an order and/or an application (*CIV-2017-485-255, MAC-01-08-002*) in relation to an area which is ***near*** the proposed route for Te Ara Tipuna.

Given that proximity, we want to notify you and seek your views on our application. Shortly, we will be in touch to arrange a meeting with Ingrid Collins and Sir Selwyn Parata, Chair and Trustee, to discuss this kaupapa.

The Trust's application will address and seek:

- *Consent for new structures (bridges) in the Coastal Marine Area ("CMA");*
- *Consent for land and soil disturbance from earthworks in the Coastal Land between 0-50 metres of the CMA on Sand Dune Country, Coastal Land between 0-20 metres of the CMA on the Coastal Margin, earthworks in Coastal Margin between 0-20 horizontal metres as measured from the CMA on the edge of an estuary, harbour or the open rocky coast, Land disturbance for river crossings in Riparian Areas of waterbodies in Schedule 1 (over 600m2) in each crossing and land disturbance exposing over 400m2 in area and volume greater than 200m3, excluding stream crossings.*

The Trust expects the development of Te Ara Tipuna will result in substantial cultural, social, economic and environmental benefits to Ngati Porou and to Te Tairawhiti as a whole. Importantly, it will restore walking access between marae and communities, create possibilities for local enterprise and economic development, increase options for whenua Maori, and for uri to connect to their whakapapa, whanau and rohe. All background documents and current information are available at **https://tearatipuna.nz/**

The Trust is working through the Gisborne District Council's resource consent process, including requesting public notification. You will be welcome to make submissions through that process also.

Nga mihi,

Hekia Parata

Hekia Parata
Trustee and Project Lead

12 November 2024

TE ARA TIPUNA WALKWAY: RESOURCE CONSENT APPLICATION

Tena koe, tena koutou, otira tena tatou katoa, i runga i nga tini ahuatanga o te wa.

I am writing on behalf of Te Ara Tipuna Charitable Trust to advise you of our resource consent application for a pedestrian track (Stage 1) of Te Ara Tipuna from Te Toka-a-Taiau (Gisborne) to Tarakeha (Opotiki).

The Trust has assessed the proposed Ara under the *Nga Rohe Moana o Nga Hapu o Ngati Porou Act 2019*. We have found no direct overlap with any customary marine title or protected customary right application or order areas. However, we understand that you have an order and/or an application (*CIV-2021-485-302, NHNP-2019-01-01*) in relation to an area which is ***near*** the proposed route for Te Ara Tipuna.

Given that proximity, we want to notify you and seek your views on our application. Shortly, we will be in touch to arrange a meeting with Sir Selwyn Parata, Trustee, to discuss this kaupapa. We note that Rei Kohere, Chair of Potikirua ki Whangaokena Takutai Kaitiaki Trust is also a Trustee of Te Ara Tipuna.

The Trust's application will address and seek:

- *Consent for new structures (bridges) in the Coastal Marine Area ("CMA");*
- *Consent for land and soil disturbance from earthworks in the Coastal Land between 0-50 metres of the CMA on Sand Dune Country, Coastal Land between 0-20 metres of the CMA on the Coastal Margin, earthworks in Coastal Margin between 0-20 horizontal metres as measured from the CMA on the edge of an estuary, harbour or the open rocky coast, Land disturbance for river crossings in Riparian Areas of waterbodies in Schedule 1 (over 600m2) in each crossing and land disturbance exposing over 400m2 in area and volume greater than 200m3, excluding stream crossings.*

The Trust expects the development of Te Ara Tipuna will result in substantial cultural, social, economic and environmental benefits to Ngati Porou and to Te Tairawhiti as a whole. Importantly, it will restore walking access between marae and communities, create possibilities for local enterprise and economic development, increase options for whenua Maori, and for uri to connect to their whakapapa, whanau and rohe. All background documents and current information are available at **https://tearatipuna.nz/**

The Trust is working through the Gisborne District Council's resource consent process, including requesting public notification. You will be welcome to make submissions through that process also.

Nga mihi,

Hekia Parata

Hekia Parata
Trustee and Project Lead

Appendix 22:

Historic Heritage Management Plan

Historic Heritage Management Plan (HHMP)

Te Ara Tipuna

Version 2: 1st May 2024

Prepared for: Te Ara Tipuna Charitable Trust
C/- BDO
1 Peel Street
GISBORNE 4010

Prepared by: Lynda Walter and Andy Brown
InSitu Heritage Ltd.
P O Box 710
WHAKATĀNE 3158

Table of Contents

1. Purpose

Te Ara Tipuna is a project to build and maintain a network of accessways for pedestrians, cyclists, and horse trekkers in Te Tairāwhiti (Gisborne District) and the Ōpōtiki District of Te Moana a Toi (Bay of Plenty). The project is a joint initiative between Te Rūnanganui ō Ngāti Porou and Ngā Hapu ō te Whānau ā Apanui. Te Ara Tipuna consists of ~500 km of trails that will connect Tūranganui-a-Kiwa to Ōpōtiki.

This document sets out the Historic Heritage Management Plan (HHMP) for Te Ara Tipuna. The objective of this HHMP is to protect historic heritage and to remedy and mitigate any residual effects as far as practicable.

The primary historic heritage places that may be affected are archaeological sites relating to pre-1900 Māori habitation and use of the areas that the proposed trail passes through. This plan contains specific procedures to manage and mitigate effects to those archaeological sites.

Details about the historic heritage identification and assessment methods are set out in the desk-based historic heritage assessment for Te Ara Tipuna (InSitu Heritage, July 2023).

2. Roles and responsibilities

The following key roles are required for the implementation of this HHMP:

- Te Ara Tipuna Charitable Trust/designated delegate/project manager
- Ngāti Porou and Te Whanau ā Apanui representatives/cultural monitors
- Approved archaeologist.

Their responsibilities are described below, and relevant contact details are provided in Section 9.

2.1 Responsibilities of Te Ara Tipuna Charitable Trust and all contractors engaged by them:

- Te Ara Tipuna Charitable Trust, or their designated delegate, shall ensure that all conditions of any relevant archaeological authority granted by Heritage New Zealand Pouhere Taonga are understood and complied with, and a copy of the authority is supplied to any contractors appointed to carry out ground disturbing works for the project.
- Heritage New Zealand and the approved archaeologist must be advised of the planned programme of works, and the timetable, **with adequate notice** to ensure site attendance as required.
- An on-site briefing must be carried out by the approved archaeologist (or their appointed delegate) prior to the commencement of ground disturbing works. This briefing must be attended by all contractors who will be engaged in ground disturbing activities.
- Te Ara Tipuna Charitable Trust, or their designated agent, must ensure that any new personnel who join the work programme are made aware of the requirements in relation to the Historic Heritage Management Plan and any relevant archaeological authority.
- Arrangements for appropriate cultural monitoring of works and tikanga requirements are to be made directly between Te Ara Tipuna Charitable Trust, or their designated delegate and mana whenua representatives.
- Te Ara Tipuna Charitable Trust, or their designated delegate, will supply sufficient site security (to prevent unlawful excavation or removal of historic heritage/archaeological material), logistical support and mechanical equipment, to ensure that all archaeological work that is required can be carried out.
- Te Ara Tipuna Charitable Trust, or their designated delegate, will provide a safe and cooperative work environment for the archaeologist(s) to carry out all site investigation or monitoring required.

2.2 Responsibilities of Mana Whenua representatives

This section will need to be completed after the Cultural Monitoring Plan has been prepared so that it is consistent with the content of that plan.

2.3 Responsibilities of the Approved Archaeologist:

- The archaeologist (or their delegate) will attend and conduct an on-site briefing for contractors prior to the commencement of ground disturbing works in areas identified as having potential for effects on archaeological values, and in all areas where an archaeological authority has been granted. That briefing is to include explanation of the requirements of any relevant Heritage New Zealand authority conditions.

- The archaeologist(s) will investigate any identified archaeological features as quickly as possible so that project works are not unduly delayed.
- If archaeological material is uncovered a stand down period for machine operator(s) may result. Stand down periods will vary according to a variety of factors, which are difficult to predict. It is the responsibility of the archaeologist to communicate the estimated stand down period to ensure machine operator(s) are available when earthworks can continue.
- The archaeologist will ensure that all archaeological work, and required reporting, is carried out to the appropriate archaeological standard and to the satisfaction of Heritage New Zealand consenting requirements.
- Archaeological investigation may include, as appropriate: mapping, recording of features in section and in plan, photography, hand excavation, collection of samples – including for faunal analysis and radiocarbon dating purposes.
- If suspected archaeological material is encountered when an archaeologist is not on site the archaeologist will respond to requests for site attendance and/or advice within 24 hours, provided that adequate prior notice of the timetable of works has been supplied.

3. Historic Heritage in the Project Area

Te Ara Tipuna journeys across a vast swathe of the Eastern North Island. The primary type of historic heritage place present in this area is archaeological sites. The area contains a diverse array of environments and landforms matched by a similarly diverse archaeological landscape.

The Tairāwhiti Resource Management Plan includes a Heritage Alert Overlay, which is a predictive model of human settlement in the district which acts as a tool to aid early recognition of historic heritage places, including archaeological sites. The majority of Te Ara Tipuna within Gisborne District is contained within the Heritage Alert Overlay. No Heritage Alert Overlay exists for the portion of the project area within Ōpōtiki District.

The majority of listed or scheduled non-archaeological historic heritage places in Te Tairāwhiti and Ōpōtiki Districts are located away from the planned route of Te Ara Tipuna. Places on the Post-European Contact Schedule are most often contained within land parcels adjacent to the trail, but features are unlikely to extend, or to exist, in the trail footprint. The majority of scheduled wāhi tapu are unaffected by the trail, the notable exception being WY5 at Tatapōuri Point. Community Heritage Reserves at Makorori Point, Pouawa and Waihau Beach are also crossed by Te Ara Tipuna.

The desk-based historic heritage assessment for Te Ara Tipuna (InSitu Heritage, July 2023) established three zones based on the likelihood of historic heritage places being present and affected by Te Ara. The proposed route was assessed in relations to the spatial extents of recorded archaeological sites, unrecorded archaeological sites, scheduled historic heritage places and the Gisborne District Heritage Alert Overlay.

Red Zones are those where historic heritage places and/or archaeological sites recorded in the NZAA Site Recording Scheme are crossed by the ara, or where remote sensing techniques provided clear evidence that unrecorded archaeological sites are present in the construction footprint of the trail.

Yellow Zones are those where no direct evidence of archaeological sites or historic heritage places was observed, but where subterranean or unrecorded archaeological sites are considered likely to occur based on landscape context or secondary information (e.g., from historical survey plans).

Green Zones are those areas where no archaeological sites or other historic heritage places were observed and where the possibility of encountering intact subterranean archaeological features is assessed to be low.

3.1 Inventory of recorded historic heritage places

There are 143 recorded archaeological sites within the Red Zones of the construction footprint. The site types are shown in Table 1, and a full list of sites is given in Appendix A.

There are no identified non-archaeological historic heritage places within the construction footprint at this stage.

Table 1: Recorded archaeological sites in the construction footprint

Site type	Gisborne DC	Ōpōtiki DC	Total
Artefact find	1		1
Burial/Cemetery/Urupā	5		5
Commercial	2		2
Historic domestic site	3		3
Māori horticulture	12	4	16
Midden/Oven	16		16
Pā	9	4	13
Pit/Terrace	65	22	87
Grand Total	**113**	**30**	**143**

3.2 Identification and assessment of unrecorded historic heritage places

Historic heritage and archaeological survey and assessments of 50 areas will be carried out as detailed design is being developed in Red and Yellow Zones to identify any additional potentially affected places. Details of these areas are provided Appendix B.

4. Assessment of effects

Te Ara Tipuna is proposed as a mixed-use trail that will accommodate walkers, cyclists, and horse trekkers. Across much of the ara the trails will run adjacent to each other in a 4.5m wide footprint. Single-use trails (e.g., just for cycling) are also proposed; and in other areas the trail will run adjacent to, or utilise, existing roads.

A range of construction methodologies are proposed. Tracks will be constructed of a mixture of raised and ground-level boardwalks and compacted lime or gravel tracks. The standard track will be a 4.5m mown path, which will be augmented where appropriate to increase stability in areas of unstable ground.

The trail will make use of existing track formations where possible, but ground disturbance associated with new track construction will occur. Further ground disturbance is likely during associated construction activities including, but not limited to, facilities construction and the installation of bollards, wayfinding and interpretation signage and planting.

4.1 Direct and indirect effects

Each of the zones identified in the desk-based historic heritage assessment (InSitu Heritage, July 2023) have different levels of potential effects to historic heritage places and archaeological sites. Different measures are therefore required in each zone to ensure the appropriate heritage management response. These are outlined below.

In Green Zones the possibility of the ara construction affecting archaeological sites and historic heritage places is assessed to be very low. Green Zones are characterised by the use of formed tracks, low-use roads or highly modified areas where it is highly unlikely that archaeological sites or historic heritage places were present or remain in situ. The potential for effects is assessed to be less than minor in these areas, therefore an Archaeological Site Discovery Protocol is the appropriate effects management tool in these areas.

Yellow Zones are areas where there is no direct evidence of the ara affecting historic heritage places including archaeological sites, but where secondary evidence or specific landscape context suggests archaeological sites may be present. Yellow zones require further assessment and advice when detail of construction methodology and finalised routes are available. This assessment and advice will be used to determine whether areas currently categorised as yellow zones can be reassigned to either green or red zones.

Red Zones are those areas where there is clear evidence that Te Ara Tipuna passes over or through archaeological sites or historic heritage places. Like Yellow Zones, further assessment is required in these areas to identify the specific effects of track construction. This assessment will follow Heritage New Zealand Pouhere Taonga guidelines and will include field survey and fine-grained desk-based analysis. In areas where further assessment identifies construction of the ara will affect archaeological sites an application will be made under the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 for a general authority to modify or damage archaeological sites prior to all ground disturbing works.

4.2 Avoidance, remediation, and mitigation

Adverse effects on physical site features will be managed in a variety of ways including modification of the route to avoid historic heritage places or visible surface archaeological features, archaeological monitoring and excavation, and construction methodologies that minimise the potential for effects and limit on-going visitor impacts.

Adverse effects from ground disturbance may be minimised by trail construction techniques that reduce the scale and extent of ground disturbance required – such as building up the track surface rather than excavation, and the use of ground screw anchoring techniques rather than conventional hand or mechanical digging.

Mitigation of effects will also be provided by appropriate monitoring, archaeological investigation and recording as required by the provisions of the Heritage New Zealand Pouhere Taonga Act 2014. Archaeological authorities will be sought for any archaeological sites identified as affected during the development of detailed design. An indicative list of recorded archaeological sites that may be affected is provided in Appendix A.

4.3 Induction and training

All new staff, contractors and monitors who are likely to be engaged in any work affecting heritage places, including archaeological sites, will be specifically inducted by the project archaeologist in conjunction with mana whenua representatives, prior to the commencement of construction works.

This will include training on the procedure below to follow if suspected archaeological features or bone material is encountered (Appendix C).

The key points in the event of discovery of suspected archaeological features or material are as follows:

- If suspected archaeological features or materials are exposed during earthworks all work in the immediate vicinity of the find should cease.
- The area of the find should be marked by high visibility tape and secured by any other appropriate means (such as re-covering with soil, polythene or other marking layer) to ensure no further immediate disturbance occurs.
- The approved archaeologist should be notified of the find and arrangements made for site attendance, if required.
- Following the site inspection, further action in relation to the find must be determined by the approved archaeologist in consultation with Heritage New Zealand, Te Ara Tipuna Charitable Trust, or their delegate and mana whenua representatives, depending on the nature of the find and the requirements of the archaeological authority from Heritage New Zealand.

In the event of exposure of bone material that is obviously kōiwi tangata (human); or is identified as human by the archaeologist, the following additional steps are required:

- All ground disturbances are to cease within 10 metres of the find, and the find is to be immediately secured to ensure that no further disturbance occurs. No material is to be removed from the location of the find.

- The site supervisor must immediately contact the New Zealand Police, mana whenua, the approved archaeologist, and Heritage New Zealand.
- Any instructions issued by the New Zealand Police must be complied with.
- The requirements of man whenua should be carried out following agreed protocols, provided that the requirements of legislation are met.
- Any requirements for analysis of human remains should be determined by mana whenua in consultation with the approved archaeologist.
- Ground disturbance in the affected area can only proceed following the removal of the human remains and on the completion of any relevant cultural actions (tikanga) and archaeological investigation of associated archaeological features.

5. Acknowledgement of cultural values

This section will need to be completed after the Cultural Monitoring Plan has been prepared so that it is consistent with the content of that plan.

6. Archaeological investigations

Prior to the commencement of ground disturbance for the construction phase of Te Ara Tipuna archaeological investigations may be required at specific locations in accordance with the conditions of any archaeological authority that may be granted by Heritage New Zealand Pouhere Taonga.

Any such investigation would have five major objectives:

i. To record the nature and extent of any archaeological features within the planned work area.
ii. To determine the resources used by occupants of the location, including taking samples of any stone, shells, animal bones, plant remains and sediments for off-site laboratory analyses.
iii. To determine the occupation sequence at the site, including obtaining radiocarbon dating samples for key archaeological contexts.
iv. To identify in spatial differentiation of activities within the investigation area.
v. To determine the nature of settlement and the relationship between occupants and available resources at the local and regional scales.

The area of planned earthworks would be investigated by excavating a series of trenches. These would be positioned to gain an appropriate sample of the project area prior to any further earthworks. If archaeological material was encountered the trenches would be expanded into larger excavation units as appropriate.

Units may be excavated by machine down to the level of the subsoil, or to where archaeological features are encountered. All features would be mapped and recorded in accordance with current archaeological practice.

The extent of archaeological excavation would be recorded electronically using RTK GPS and UAV. Trench recording would follow standard archaeological methods, including drawing and photographing layers and sections.

Any faunal material would be processed by InSitu Heritage Ltd using standard material culture and archaeozoological methods. Once processed a small quantity of midden material would be retained for radiocarbon analysis, the remaining midden would be repatriated following guidance from mana whenua.

Any artefacts would be managed and curated in accordance with the legal requirements of the Protected Objects Act 1975, and the tikanga instructions provided by mana whenua. Analysis would follow standard archaeological methods as required by the conditions of the relevant archaeological authority.

A programme of radiocarbon dating would be carried out if appropriate material was identified. Samples would be selected from secure archaeological contexts. The dating programme would be directed toward understanding the chronology of the site.

Where possible charcoal samples would be analysed to reconstruct the past landscape. If encountered, culturally modified soils would be sampled and analysed using palynological methods.

Interim and final written reporting of the findings of investigations would be prepared and submitted to Heritage New Zealand and all other parties specified within the conditions of the relevant archaeological authority.

7. Reporting

Electronic copies of all historic heritage reports relating to historic heritage investigations (evaluation, excavation, and monitoring), and all reporting required by the conditions of any archaeological authority will be submitted to Heritage New Zealand Pouhere Taonga, mana whenua and Council in accordance with the timeframes set by the conditions of any archaeological authority granted by Heritage New Zealand and/or within 12 months of completion of the project.

Updated or new records for all known or newly identified archaeological sites will be submitted to ArchSite as part of the reporting requirements.

8. Dispute resolution relating to archaeological authorities

In the event of a dispute relating to an archaeological authority requirement the following procedure for resolution should be followed:

- If the dispute relates to archaeological issues, a meeting between the Authority holder (or designated representative), contractor or subcontractor and archaeologists would be convened as soon as possible to attempt to resolve the dispute.

- If the dispute cannot be resolved a further meeting of all parties with representatives of the HNZPT will be arranged within five working day to resolve the dispute. The HNZPT has ultimate responsibility for resolving issues relating to the conditions of an authority that it issues.

9. Contact List

Project Manager – TBC

Heritage New Zealand Pouhere Taonga Senior Archaeologist Tauranga – Dr Rachel Darmody 027 292 1588 ArchaeologistLN@hertiage.co.nz

Section 45 approved Archaeologist – Lynda Walter InSitu Heritage Ltd. 027 472 1467 lynda@insitu-heritage.co.nz

Project Archaeologist – Dr Andy Brown 021 178 2752 andy@insitu-heritage.co.nz

Mana whenua contact(s) –

Appendix A – Inventory of recorded archaeological sites in Red Zone

NZAA No.	Site Type	Ethnicity	District	Region
Y18/68	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/454	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/455	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/456	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/457	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/458	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/459	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/460	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/25	Urupā	Māori	Gisborne district	Gisborne
Y18/461	Urupā	Māori	Gisborne district	Gisborne
Y18/442	Pit/Terrace	Māori	Gisborne district	Gisborne
Y18/346	Midden/Oven	Māori	Gisborne district	Gisborne
Y18/15	Pā	Māori	Gisborne district	Gisborne
Y18/23	Pā	Māori	Gisborne district	Gisborne
Y17/30	Pit/Terrace	Māori	Gisborne district	Gisborne
Y17/383	Pit/Terrace	Māori	Gisborne district	Gisborne
Y17/292	Pit/Terrace	Māori	Gisborne district	Gisborne
Y17/364	Pit/Terrace	Māori	Gisborne district	Gisborne
Y17/365	Pit/Terrace	Māori	Gisborne district	Gisborne
Z17/41	Pit/Terrace	Māori	Gisborne district	Gisborne
Z17/42	Māori Horticulture	Māori	Gisborne district	Gisborne
Z17/43	Māori Horticulture	Māori	Gisborne district	Gisborne
Z17/44	Māori Horticulture	Māori	Gisborne district	Gisborne
Z17/45	Urupā	Māori	Gisborne district	Gisborne
Z17/39	Pā	Māori	Gisborne district	Gisborne
Z17/40	Midden/Oven	Māori	Gisborne district	Gisborne
Z17/347	Pit/Terrace	Māori	Gisborne district	Gisborne
Z17/549	Historic-domestic	Combination	Gisborne district	Gisborne
Z17/550	Pit/Terrace	Māori	Gisborne district	Gisborne
Z17/544	Pit/Terrace	Māori	Gisborne district	Gisborne
Z17/545	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/220	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/39	Pā	Māori	Gisborne district	Gisborne
Z16/40	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/41	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/42	Pā	Māori	Gisborne district	Gisborne
Z16/43	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/21	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/36	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/221	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/31	Pit/Terrace	Māori	Gisborne district	Gisborne

NZAA No.	Site Type	Ethnicity	District	Region
Z16/32	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/144	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/20	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/136	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/80	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/81	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/242	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/243	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/206	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/19	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/58	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/18	Māori Horticulture	Māori	Gisborne district	Gisborne
Z16/241	Burial/Cemetery	Non-Māori	Gisborne district	Gisborne
Z16/54	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/55	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/56	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/57	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/7	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/10	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/246	Historic-domestic	Non-Māori	Gisborne district	Gisborne
Z16/162	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/163	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/17	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/193	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/2	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/8	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/9	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/157	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/158	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/156	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/194	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/195	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/196	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/217	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/219	Commercial	Non-Māori	Gisborne district	Gisborne
Z16/205	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/178	Pā	Māori	Gisborne district	Gisborne
Z16/146	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/190	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/191	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/186	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/188	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/189	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/190	Pit/Terrace	Māori	Gisborne district	Gisborne

NZAA No.	Site Type	Ethnicity	District	Region
Z16/191	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/177	Commercial	Non-Māori	Gisborne district	Gisborne
Z16/179	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/180	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/187	Midden/Oven	Māori	Gisborne district	Gisborne
Z16/234	Historic-domestic	Non-Māori	Gisborne district	Gisborne
Z16/176	Burial/Cemetery (Modern)	Combination	Gisborne district	Gisborne
Z16/184	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/185	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/181	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/182	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/183	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/197	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/145	Pā	Māori	Gisborne district	Gisborne
Z16/131	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/122	Pit/Terrace	Māori	Gisborne district	Gisborne
Z16/123	Pit/Terrace	Māori	Gisborne district	Gisborne
Z15/83	Pit/Terrace	Māori	Gisborne district	Gisborne
Z15/84	Pā	Māori	Gisborne district	Gisborne
Z15/85	Pit/Terrace	Māori	Gisborne district	Gisborne
Z15/73	Māori Horticulture	Māori	Gisborne district	Gisborne
Z15/74	Pit/Terrace	Māori	Gisborne district	Gisborne
Z15/75	Pā	Māori	Gisborne district	Gisborne
Z15/76	Pit/Terrace	Māori	Gisborne district	Gisborne
Z14/139	Midden/Oven	Māori	Gisborne district	Gisborne
Z14/140	Midden/Oven	Māori	Gisborne district	Gisborne
Z14/141	Artefact find	Māori	Gisborne district	Gisborne
Z14/159	Māori Horticulture	Māori	Gisborne district	Gisborne
Y14/279	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/280	Māori Horticulture	Māori	Ōpōtiki district	Bay of Plenty
Y14/281	Pā	Māori	Ōpōtiki district	Bay of Plenty
Y14/282	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/283	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/284	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/285	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/287	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/288	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/289	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/290	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/291	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/292	Māori Horticulture	Māori	Ōpōtiki district	Bay of Plenty
Y14/293	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/294	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/295	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty

NZAA No.	Site Type	Ethnicity	District	Region
Y14/296	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/297	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/298	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/299	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/300	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/301	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/313	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/314	Pā	Māori	Ōpōtiki district	Bay of Plenty
Y14/327	Māori Horticulture	Māori	Ōpōtiki district	Bay of Plenty
Y14/359	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
Y14/328	Māori Horticulture	Māori	Ōpōtiki district	Bay of Plenty
X14/65	Pit/Terrace	Māori	Ōpōtiki district	Bay of Plenty
X15/20	Pā	Māori	Ōpōtiki district	Bay of Plenty
X15/264	Pā	Māori	Ōpōtiki district	Bay of Plenty

Appendix B – Areas in red and yellow zones requiring further assessment

Day	Description	Zone
1	Inland track north of Whangara Road, 2.6kms north of track start, to south of Turihauā Steam	Red
1	Coastal track south of Whangara Road, passing through Tatapōuri Point	Red
1	Track connecting northern end of Whangara Road coastal track and in land track, north of Tatapōuri Point	Yellow
1	Coastal track east of Whangara Road, south of the Pouawa River	Yellow
2	Coastal track following Parikonohi Point, to Tapuwaerongokako	Red
2	Coastal track from Tapuwaerongokako to 300 metres south of Waiomoko River	Yellow
3	Pa Road track and coastal track following the coast to the Pakarae River, then along the river for 6kms before heading eastwards to the coast for another kilometre	Yellow
3	2kms north of Pakarae River, for approximately 2kms to south of Waihau Road	Red
3	Last kilometre of Day 3 to Waihua Beach	Yellow
4	First 3kms of Day 4, both the coastal and inland track, ending 900 metres north of Wairua Stream	Yellow
5	From the base of the Tatarahake Cliffs Track to Alan Scragg Lookout and then heading north for another 600 metres to connect to the inland track	Yellow
5	Starting 500 metres south of Karaka Bay, and along the Karaka Bay coastal track to the Waikirikiri Stream	Red

Day	Description	Zone
6	550 metres south of the Raponga Stream for 865 metres of the track, inland from Mārau Point	Red
6	Last 1.8kms of Day 6 to Anaura Bay	Red
7	Start of Day 7 until the last 5 kilometres to Tokomaru Bay	Red
8	1.8km section of the track 5.3kms north of Tokomaru Bay	Yellow
8	Section of track 300 metres south of the Waipiro Stream, starting at Waipiro Road, then heading through bush to the west and connecting back to Waipiro Road for another kilometre.	Yellow
9	Starting 6kms from the start of Day 9, near the Te Maire Stream and ending close to the Whareponga Stream	Yellow
10	Starting from Tūpāroa on the southern side of the Waitekaha Stream continuing to Reporua Road	Red
11	Last kilometre of Day 11, north of Ruatoria	Yellow
12	First 1.5kms of Day 12, along Waiomatatini Road	Yellow
Hikurangi Loop Day 1	Day 1 of Hikurangi Loop, from Kopuaroa Road along the Makatote Stream to Makarika Road	Yellow
Hikurangi Loop Day 1	2km west of Waiapu Road, from Makarika School Road to Karewa Road	Red
Hikurangi Loop Day 2	All of Hikurangi Loop Day 2	Yellow
Hikurangi Loop Day 3	First 5.3kms of Hikurangi Loop Day 3	Yellow
Day 13	500 metres of Day 13, at the Maraehara Road and Rangitukia Road junction, Rangitukia	Yellow
Day 14	Last 4.8kms of Day 14, ending at the East Cape Road campsite	Red

Day	Description	Zone
Day 15	Heading inland from the coast at Taikawakawa Stream for 4kms ending at just east of the Waipohatuhatu Stream	Yellow
Day 15	500 metre part of the track, ending at Maruhou Point	Yellow
Day 16	5.7kms from the start of Day 16, a 700metre portion of track heading up Te Koau from Te Araroa Road	Red
Day 16	7.3kms from the start of Day 16, heading down from Ta Koau to meet Te Araroa Road	Red
Day 17	2.8kms from the start of Day 17, following the Wharekahika River for 16kms to join Te Araroa Road	Yellow
Day 18	8.5kms from the start of Day 18, 1.1km section of track to the north of Te Rereauira Stream	Yellow
Day 19	Coastal track option along Whangaparāoa Bay	Yellow
Day 19	Portion of the coastal track west of Oruaiti Beach, heading to Waihau Bay	Yellow
Day 20	Coastal track around Orete Point	Yellow
Day 20	4kms of coastal track around Otiki Point, coming off SH35 on the eastern side	Red
Day 20	Connecting the coastal track to SH35 at Maraehako Bay for 600m	Yellow
Day 20	160 metres of track along SH35, 230 metres west of Maraehako Camp ground	Yellow
Day 21	2.2kms west of Day 21 start, for 2.2kms along SH35	Yellow
Day 21	200 metres west of Waiopuoroaro Stream for 1.5kms to Waikawa Point	Yellow
Day 21	Coming off SH35 just south of the Kereu River for 3.3kms to Wharekura Point	Yellow

Day	Description	Zone
Day 22	200 metres of track connecting the coastal track to SH35	Red
Day 23	800 metres of track north of SH35 south of the Waioira Stream	Yellow
Day 23	West of the Motu River, coming off SH35 following the Waiopoohu Stream and following the coast to rejoin SH35	Yellow
Day 24	The first 2.5kms of Day 24, joining to meet SH35	Yellow
Day 24	2.4km portion of the track coming off SH35 and returning to SH35 east of Haumiaroa Point	Yellow
Day 25	First 2.1kms of Day 25 coastal option along Hawai beach	Yellow
Day 25	4.5km stretch of coastal option at Torere Beach	Yellow
Day 26	First 3.5kms of Day 26 along the coast to Waiaua River	Red

Appendix C – Archaeological Site Discovery Protocol

Discovery Protocol for Archaeological Sites, Kōiwi tangata and Taonga

If archaeological sites, kōiwi tangata (human remains) or taonga (artefacts) are uncovered or suspected during ground disturbance the following process will be followed by all persons.

1. All work shall cease immediately at the site of discovery.
2. Secure the area to prevent further damage. **DO NOT** remove any material from the site. Advise (insert appropriate staff member/project title and contact number)
3. The (appropriate project title) will notify the lead archaeologist Lynda Walter (027 472 1467) or project archaeologist (insert archaeologists name and number). Depending on the archaeologist's advice, the (appropriate project title) will notify Heritage New Zealand Pouhere Taonga (insert HNZ regional archaeologist name and number)
4. If the site is of Māori origin (appropriate staff member) shall notify (insert appropriate iwi/hapu representative) to determine what further actions are appropriate to safeguard the site or its contents (insert appropriate iwi contacts).
5. If clearly identifiable human skeletal remains are uncovered the (appropriate staff member) shall also immediately advise the NZ Police (this is a legal requirement following the discovery of any human skeletal material).
6. The project archaeologist will attend the site, if required, and carry out an investigation of the area to ensure archaeological material is managed in accordance with the Heritage New Zealand Pouhere Taonga Act (2014).
7. Works affecting the site shall not resume until Heritage New Zealand, the Police (if skeletal remains are involved) and (appropriate iwi groups) have each given approval for work to continue.
8. If advised by Heritage New Zealand that an archaeology authority is required, no further work that will affect the site shall be undertaken until the authority is granted and any conditions met.

Contacts

Site Supervisor

Job Title

Name

Project Archaeologist Name

Heritage NZ Staff

Heritage New Zealand Pouhere Taonga Archaeologist

Iwi/hapū

Name| Kaumatua

End of Report