SPORT GISBORNE TAIRĀWHITI

TE ARA TIPUNA

RECREATION ASSESSMENT

JUNE 2023

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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.

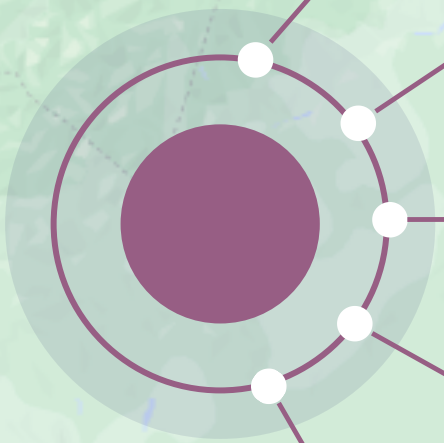
The recreation opportunities that will emerge or be enhanced from the development of the Ara and the flow-on benefits these will have to the region.

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.

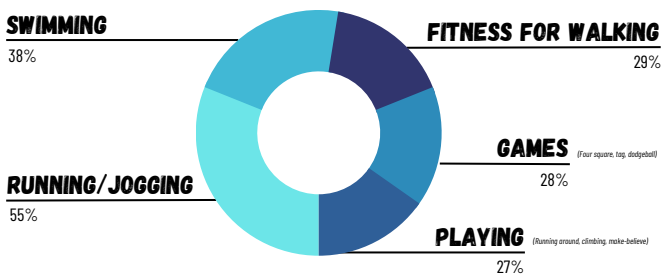
Photo credit:
Whangawehi Catchment Management Group

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)

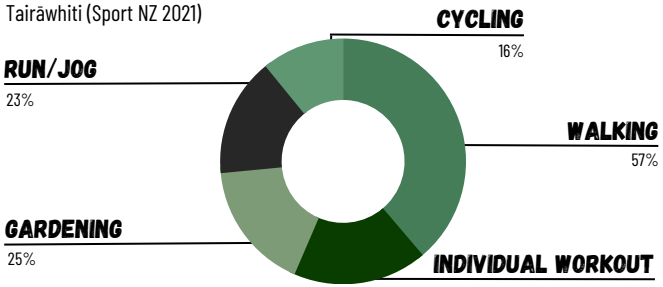


Fourth highest answer of things they'd like to do more of:

Tramping and bushwalks **30%**

Top five activities in the past 7 days for adults

Tairāwhiti (Sport NZ 2021)

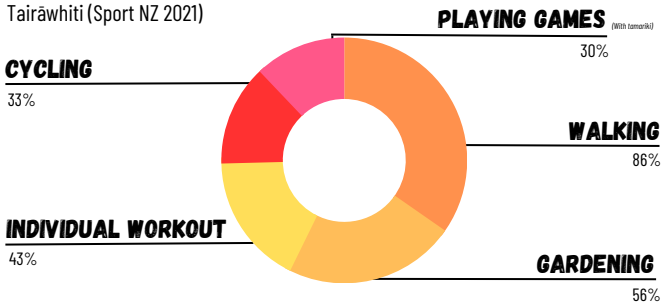


Second highest answer of things they'd like to do more of:

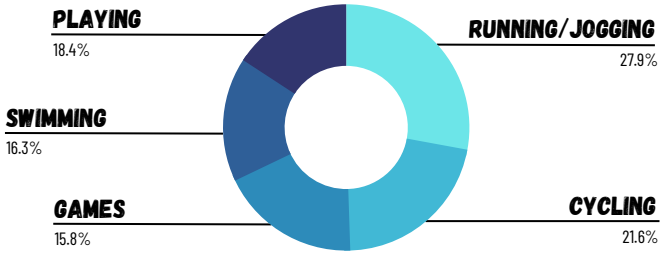
Tramping and bushwalks **23%**

Top five activities in the past 12 months for adults

Tairāwhiti (Sport NZ 2021)



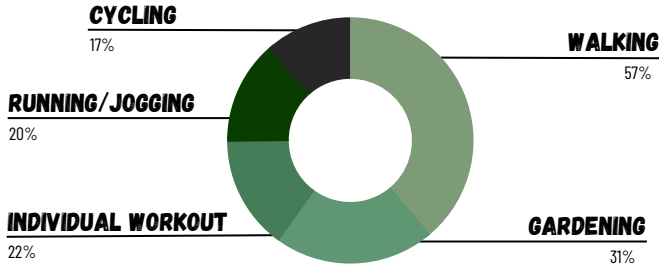
Bay of Plenty (Sport NZ 2021)



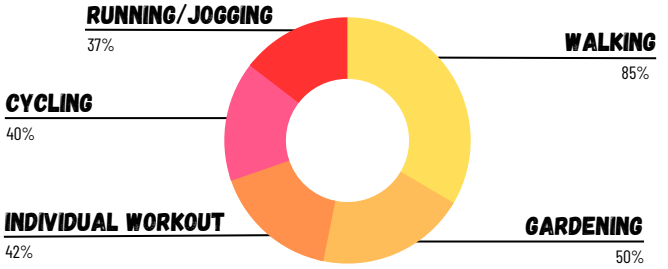
Third highest answer of things they'd like to do more of:

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.

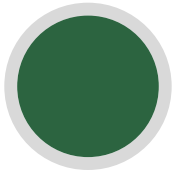
To give guidance on how Māori Wellbeing could be measured, Durie (2006) outlines the levels of wellbeing at an individual, whānau, and population basis. So, considering the impact of wellbeing thorough physical activity or cultural identity needs to be viewed and planned for at an individual, whānau 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.

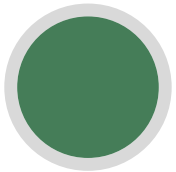
With 71.1% of Ngāti Porou and 59.1% Te Whānau a Apanui living in urban areas (notably Auckland, Bay of Plenty, Gisborne the Waikato and Wellington), Te Ara Tipuna provides an opportunity to reconnect to whenua and identity and doesn't require a whānau to find pathways to access hau kainga, but could 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:



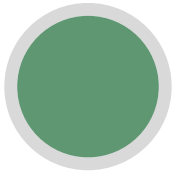
MANAAKITANGA

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



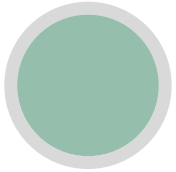
PUPURI TAONGA

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*) .

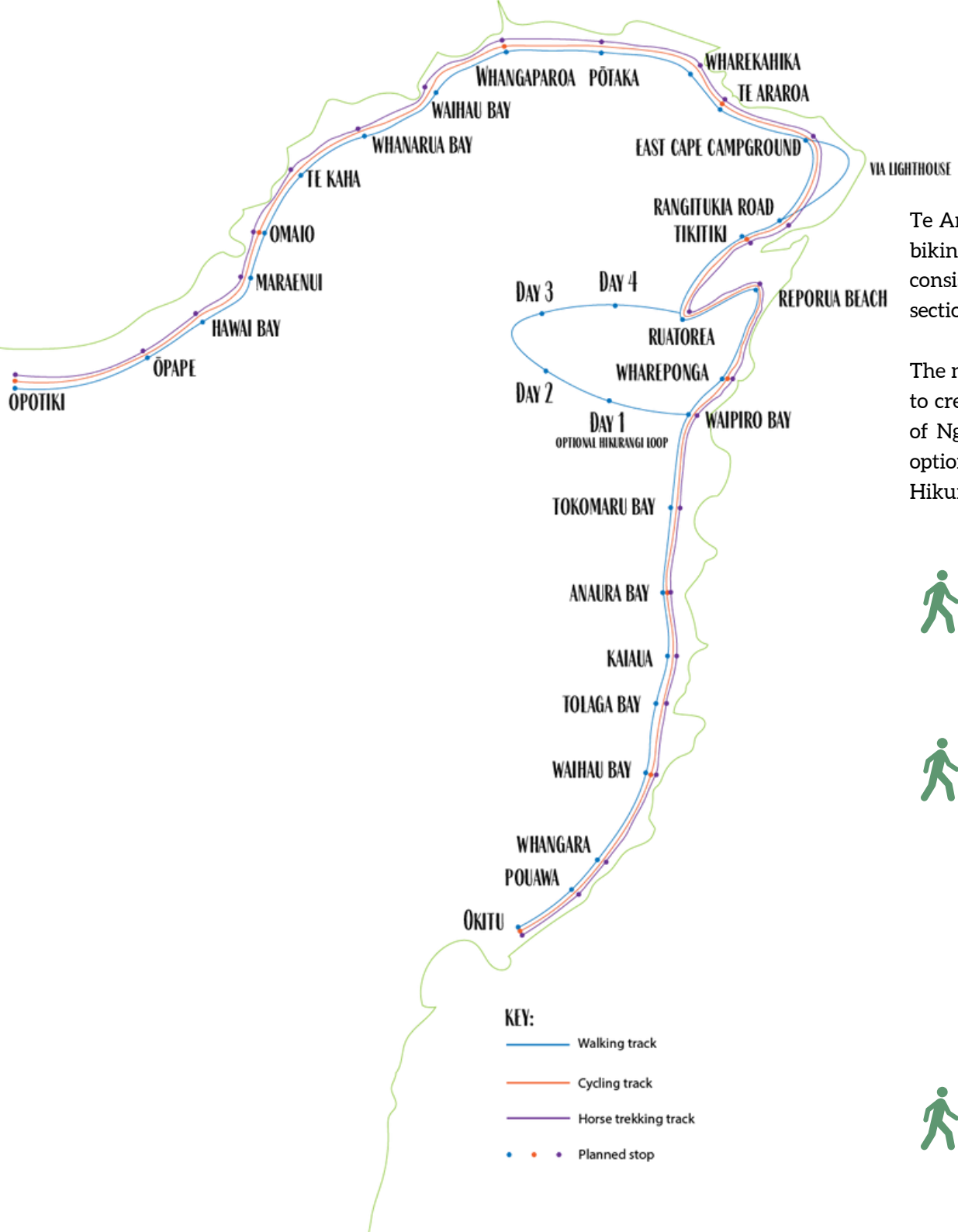
Through co-design processes at our schools, the top end of the Coast prioritise recreational activities of hunting, fishing, diving for kaimoana and kai preparation. These activities provide a way for rangatahi to be connected to the taiao and places of significance for their whānau and hapū. When asked 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.

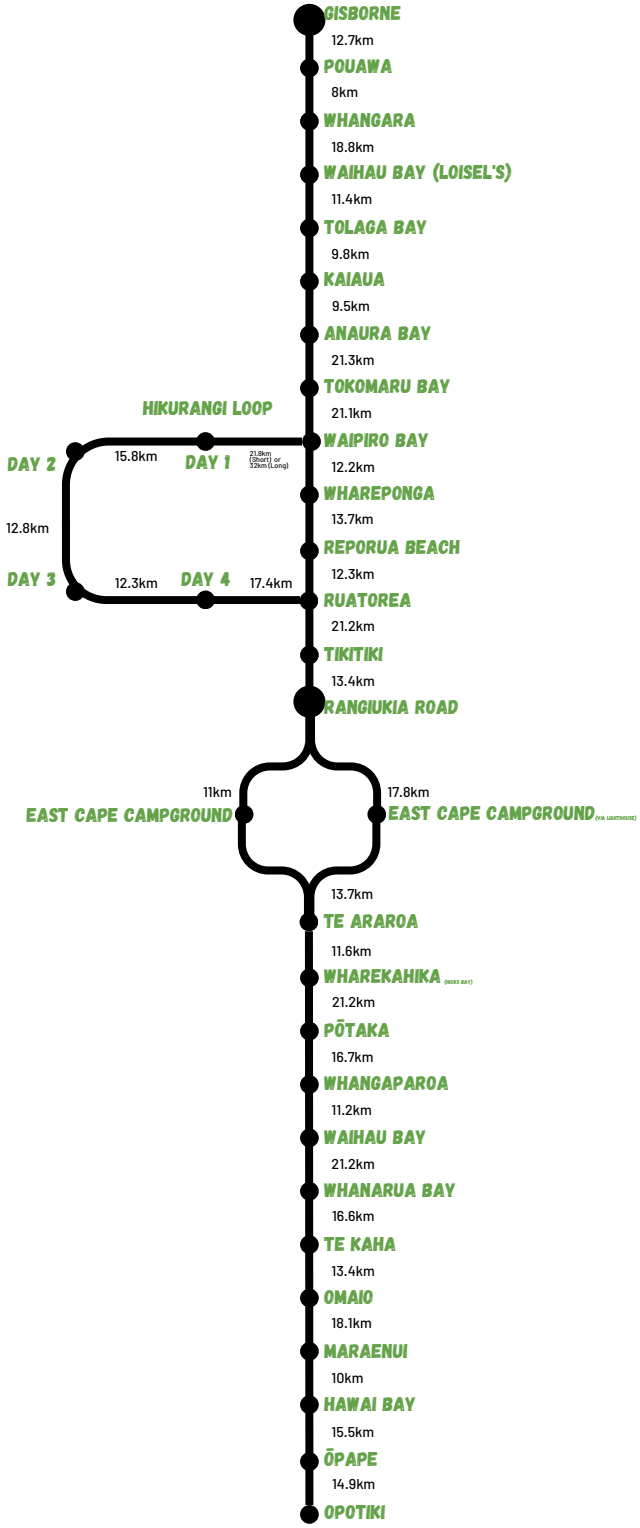
The Waka Kotahi (NZTA) Cycle Route Grading System descriptions and the NZ Cycle Trail Design Guide were used to determine the estimated trail grades. The Cycle Trail Design Guide 5th edition (Appendix B - 3.2 table 2 & 4.2, table 12) is used as a reference for users to get an understanding of the difficulties 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.

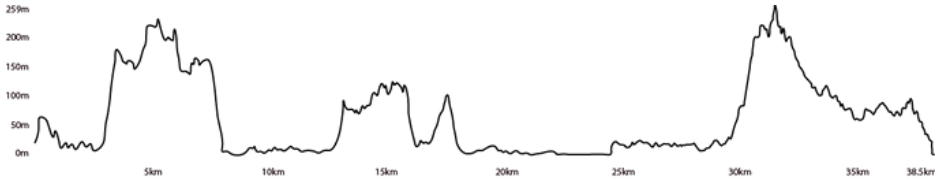
Due to the various track surfaces, including gravel, hills, beach, and farmland, it would be advisable to have prior mountain biking experience. It would be recommended to use a mountain bike with good gears and good tyre tread. All riders should wear a helmet on all sections of the track.

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

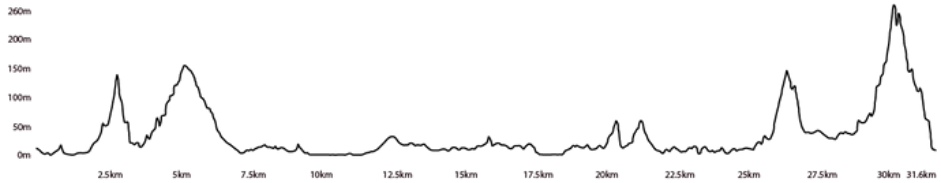
OKITU → WAIHAU BAY (LOISELS)



- 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



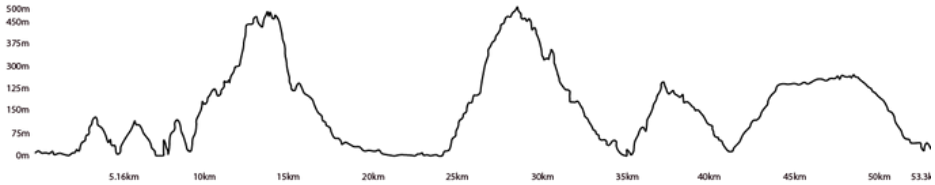
- 31.8km of biking track
- 7 hours recommended time to bike
- 3 walking days
- 30.7km of walking track
- 1 and a half horse trekking days
- 12 hours 15 minutes of total walking time recommended

- 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.

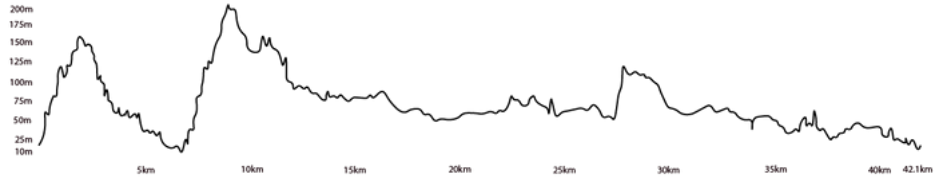
ANAURA BAY → WHAREPONGA



- 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.

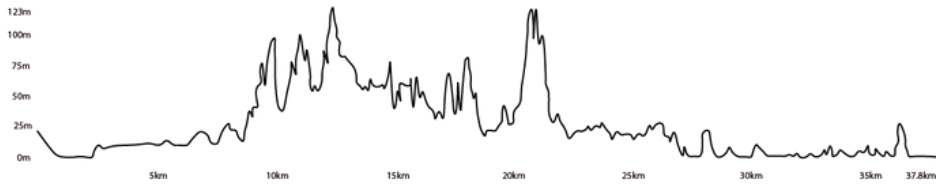
WHAREPONGA → TIKITIKI



- 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

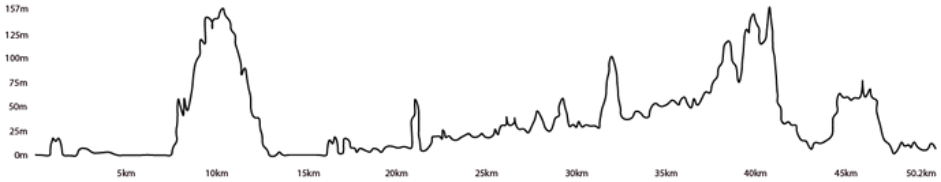
TIKITIKI → TE ARAROA



- 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



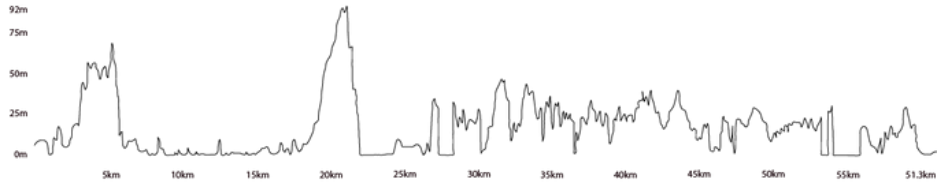
- 50.1km of biking track
- 3 walking days
- 1 and a half horse trekking days
- 7 hours 15 minutes recommended time to bike
- 49.5km of walking track
- 17 hours 30 minutes of total walking time recommended

- 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.

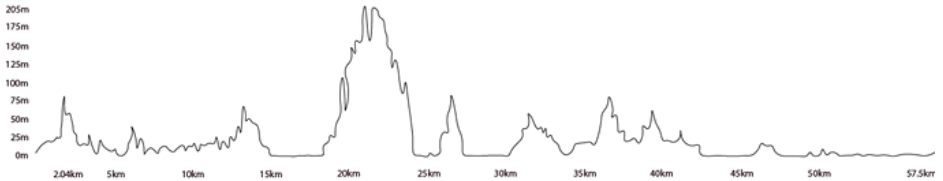
WHANGAPAROA → OMAIO



- 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.

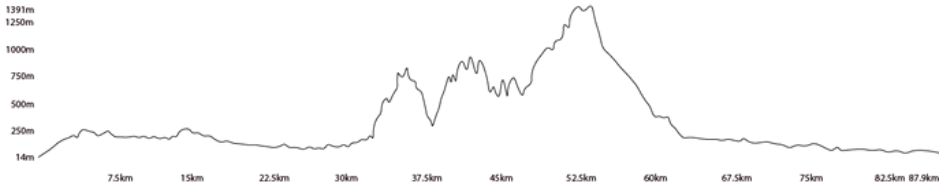
OMAIO → OPOTIKI



- 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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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