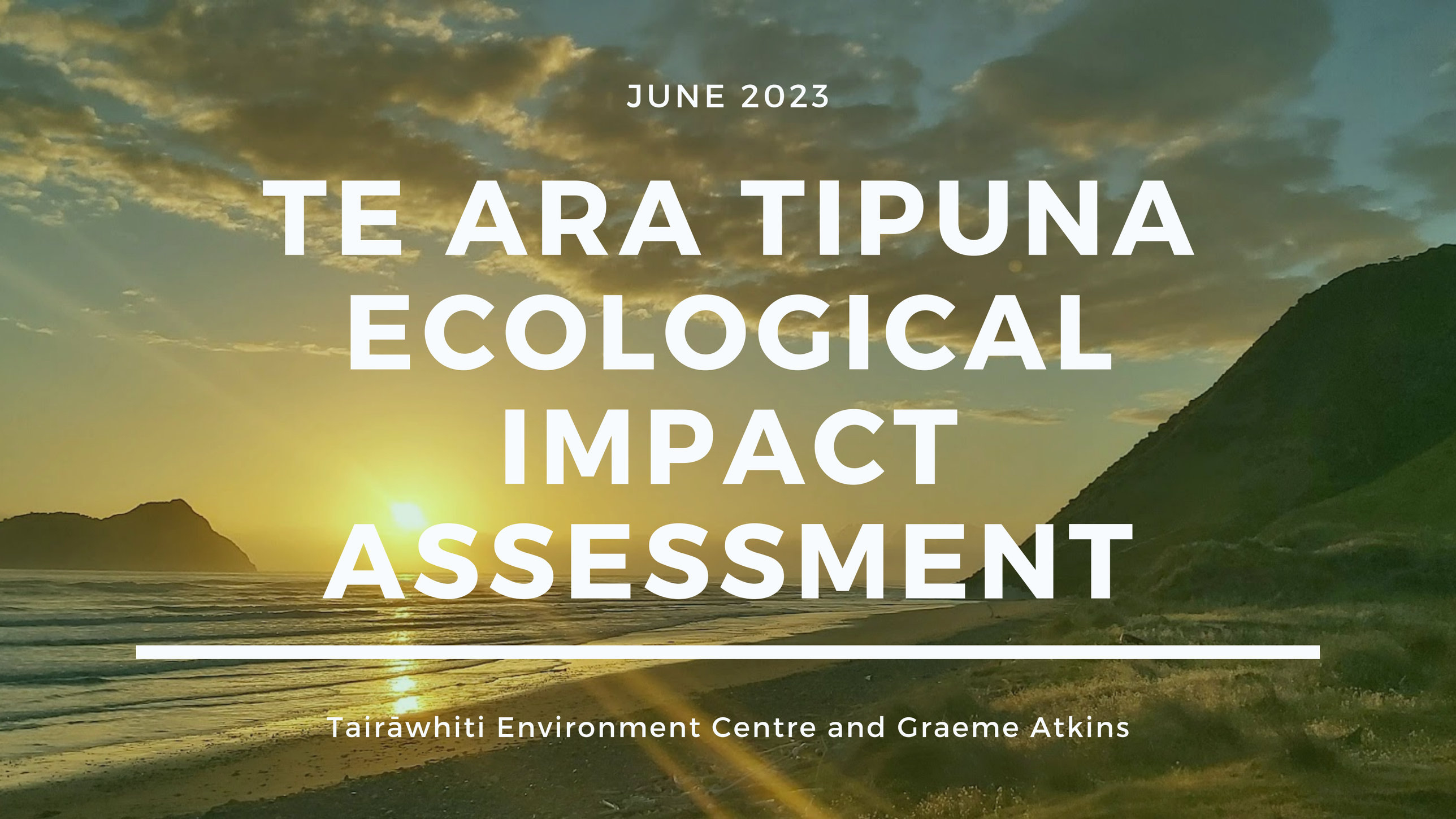
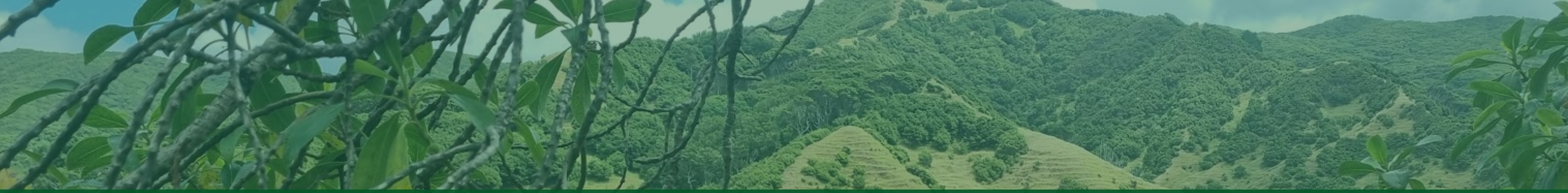


JUNE 2023

TE ARA TIPUNA ECOLOGICAL IMPACT ASSESSMENT

Tairāwhiti Environment Centre and Graeme Atkins

Contents:



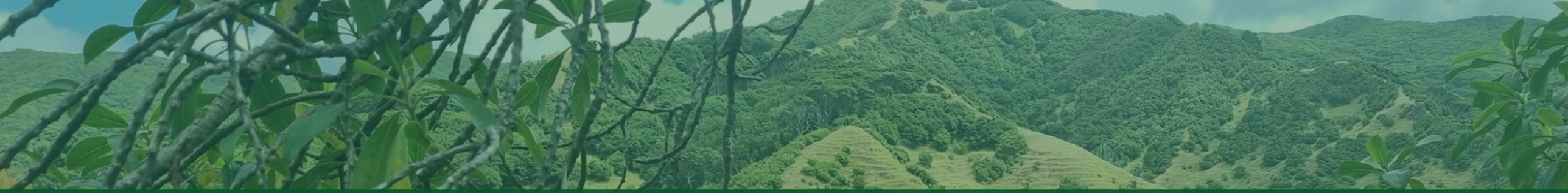
Executive Summary

Te Ara Tipuna proposes to construct over 500kms of tracks between Tūranga and Opotiki which will facilitate the connection of whānau, hapū, community and manuhiri with the whenua, each other, and the traditional practices and knowledge of our tipuna.

Presented in this report is an assessment of the potential impacts on the ecological values of areas of significance that were identified in the planning process. The primary approach to the protection of significant areas has been to avoid them where possible during the planning process. **33** areas of significance were assessed during the creation of the report and **7** have been identified as having potential impacts. The following areas have been identified as having the potential for ecological values to be impacted during the construction of the Ara:

Whangaparaoa Dunefield – Moderate. The proposed alignment borders the dunefield which is an extensive coastal ecosystem that includes native vegetation and a dune wetland. Construction has the potential to impact the dunefield and site assessments will be required to ensure the proposed alignment avoids the area of significance. The impact of sedimentation created during construction adjacent to waterways, wetlands and dune systems will be an important mitigation tool.

Waipare and Nuhiti Q Scenic Area – Moderate. This area is a Ngā Whenua Rāhui Kawenata that is comprised of primary and secondary forest and kanuka regenerating bush areas. Field assessments will be required to ensure that the proposed track alignment avoids significant trees, and identifies any threatened species that may be present to mitigate ecological impacts. Vegetation clearance will be required to construct the track through this area. Consultation with the landowner and Ngā Whenua Rāhui to determine if Te Ara Tipuna aligns with the Kawenata (covenant) on the area will be required.



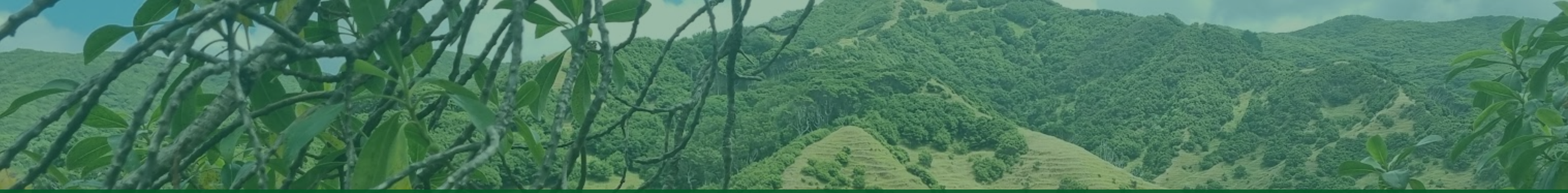
Tauhiti – Moderate. Tauhiti is an area of secondary growth kanuka forest and vegetation clearance will be required to construct the proposed track. Regionally significant plants and threatened species are not known to be present in this area.

Te Koau – High. This site will require the construction of a track through steep terrain and mature forest area. The felling of trees will be required during construction. Site visits and the appropriate management plans will need to be created to ensure that the ecological values of this site are maintained during construction.

Orangoihunui Point - Moderate. Two potential track alignments are proposed and one requires construction within the area of significance. Vegetation clearing will be limited and track material and construction method will likely mitigate impacts on ecological values.

Motu River Mouth - Moderate. This area is assessed as moderate due to the alignment of the track adjacent to the river mouth, the potential for sediment to enter the waterway during construction, and the Very High ecological significance of the area. The proposed track alignment is adjacent to the area.

Hikurangi – Moderate. The track alignment proposed for the Hikurangi Loop utilises existing tracks and paths. The 'High' score is reflective of the 'Very High' ecological assessment of the area of significance.
To manage the impacts on these sites, and any others subsequently identified, management plans will be formulated with steps and procedures to manage the potential impacts on ecological values of the construction, maintenance, and use of the Ara. Once track design is finalised, the management plans will be applied to ensure that effects on ecological values will be managed. At a regional scale the impact of Te Ara Tipuna on areas of ecological significance is likely to be low.



Whangara Beach- Moderate. Whangara Beach is a 1km stretch of duneland -spinifex and marram, and pingao. The area is a nesting site for doterrels. The track alignment proposes a transition from the beach (unformed track) that could potentially impact the dune area. Site assessments will be required during the detailed design phase to ensure that the transition section of the track avoids the dunes.

Oruaiti - Moderate. Oruaiti is an area extending from the rocky shoreline incorporating the beach and adjacent sand dunes. The Waikanapanapa Cliffs are also included in this area. Oruaiti has High Natural Science Factors attributed to the coastal dunes and beach and rocky shoreline. The proposed track transitions from the beach to SH35 and site assessments will be required to inform the detailed design phase to determine the final alignment of the track.

In conclusion, the approach of the Project Team in designing the proposed alignment has greatly served to avoid impacts on ecological values of areas of significance through the construction of Te Ara Tipuna. Where ecological impact is identified, it will be managed by seeking track alignments, construction methods and design, and the implementation of specific management plans to mitigate impacts. This approach will be applied to any further areas of significance that are identified through the ongoing project planning and implementation. The projected impacts on areas of ecological significance across the 500kms of proposed track is assessed as Low due to the mitigations and controls identified by the Project Team.

Project Description

With over 600 kilometres of continuous trails traversing the rohe of Ngati Porou and Te Whanau a Apanui, Te Ara Tipuna will provide vital connection for the communities that stretch from Tūranganui-a-Kiwa to Opotiki. The development of the trails will serve as a catalyst for the rejuvenation of the social, cultural, and economic practices of mana whenua. Transcending beyond the present day, Te Ara Tipuna will also play a crucial role in connecting communities on the Coast to the matauranga and practices of our ancestors.

Weaving through diverse landscapes, and with the infrastructure accessible to walkers, bikers, and horse trekkers, Te Ara Tipuna will complement and enhance the ecological and cultural sites of significance that exist within the rohe. Users of the trail will be imersed in the taiao - uplifting their wairua through exposure to native bush, mountains, river valleys, beaches, and farmland.

Over-and-above the connectivity provided by Te Ara Tipuna, tourism and economic opportunities will be created. Visitors will be drawn to the unique landscapes, and strength of cultural practices, that are found within our rohe. There will be entrepreneurial opportunities to share
local pūrākau, the significance and uniqueness of our environment and daily ways of life; providing a distinct experience for users of the trails whilst also supporting the economic vitality of the region. Te Ara Tipuna will also play a role in supporting the resilience of our region during weather events by providing alternative access for communities isolated by events such as Cyclones Hale and Gabrielle.

BACKGROUND

This Ecological Impact Assessment is a collaborative report between Tairāwhiti Environment Centre and Graeme Atkins.

Tairāwhiti Environment Centre (TEC) is based in Gisborne and is a community Environment Centre which serves the whole Tairāwhiti region. TEC's vision is 'Te Taiao, He Taiora, Te Tairāwhiti – When Nature Thrives, Te Tairāwhiti Thrives' and the strategic priorities of TEC are Education, Waste Minimisation, and Biodiversity. TEC has delivered and supported numerous environmental restoration and education projects across the region during its over 30 years of operations. TEC works collaboratively with Iwi, Gisborne District Council, Department of Conservation, community and volunteer groups, Jobs For Nature Projects and multiple other stakeholders across the region. TEC is currently the umbrella organisation for the 'Eastern Whio Link' and 'Te Whakapae Ururoa' Jobs For Nature Projects and has successfully completed the delivery of the Ministry for the Environment and Department of Conservation funded 'Te Rea' Jobs For Nature project in 2021 that employed 8 teams from Te Araroa to Mahia in environmental restoration.

Graeme Atkins is a Ngāti Porou Taiao Kaimahi and Kaitieki who works for the Department of Conservation and Raukūmara Pae Maunga. Raukūmara Pae Maunga is a joint Ngāti Porou, Te Whānau a Apanui, and Department of Conservation restoration project for the Raukūmara that Graeme was instrumental in establishing. Graeme lives in Tikapa and works closely with Iwi, landowners, scientists, local communities, and schools and he has made an outstanding contribution to the protection of threatened species particular to the Tairāwhiti. Graeme’s expertise in protected and rare plants (such as the white kakabeak / Ngutukaka, the native iris mikoikoi, and dactylanthus) was recognised in 2020 when he was awarded the Department of Conservation’s Loder Cup.

Te Taiao

The underpinning ecological approach for Te Ara Tipuna is to ensure that there is no net loss of ecological values caused by the construction of the Ara. It is envisaged that in the long term, the construction of Te Ara Tipuna will support the increase of ecological values and restoration of the whenua and taiao that it passes through.

Tairāwhiti Environment Centre and Graeme Atkins have been closely involved in the design of the proposed alignment of the Ara to ensure that in the first instance, areas of ecological significance are avoided. This approach has served to greatly limit the potential impact of the Ara on areas of ecological significance, threatened species, and to mitigate the loss of or damage to biodiversity values.

Measures implemented to avoid, mitigate or remedy effects on ecological values include:

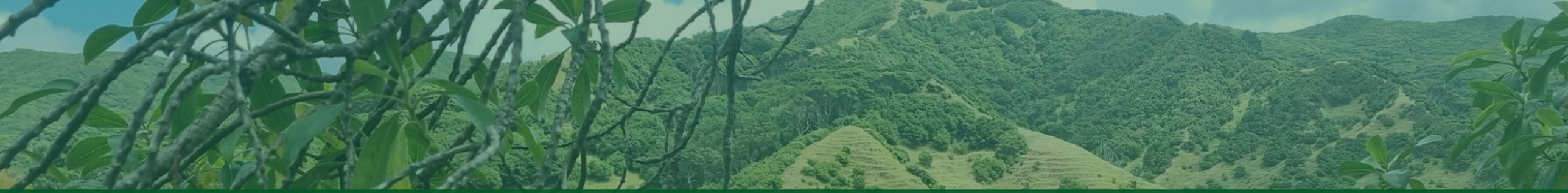
- Design of the proposed route to avoid areas of ecological value where practicable.
- Use of existing tracks, trails and infrastructure
- Construction methods and techniques to mitigate impact on landscape and ecological values such as bird nesting areas, critically threatened species, wetlands, dunefields, mature native forest.
- Where new bridge crossings are required they have been sited away from areas identified as having ecological significance.
- Utilisation of existing tracks and paths to avoid construction on sand dune ecosystems and wetlands.
- The implementation of a Passport system which will contain information and guidelines for track users on specific rules and behaviours to ensure ecological values remain intact, i.e. avoid high tide line during dotterel nesting season.

While the primary focus of this report is to identify areas of ecological significance that have the potential to be impacted by the project it is important to note that Te Ara Tipuna has the potential to be a powerful mechanism for connection to the Taiao for whānau, hapū, community and

Te Ara Tipuna traverses the Gisborne District Council, Opotiki District Council and Bay of Plenty Regional Council's territories.

Te Ara Tipuna crosses 3 Ecological Districts

- Waiapu
- Pukeamaru
- Motu



Scope and Methodology

The Ecological Impact Assessment forms part of a suite of reports prepared for Te Ara Tipuna to support the resource consent application. Due to the scale of the project which will consist of multiple activities in separate locations across the proposed 500km of tracks the primary tool utilised to inform the Ecological Impact Assessment is a desktop analysis of available resources and information including but not limited to:

- Tairāwhiti Resource Management Plan – Gisborne District Council
- Opotiki District Plan – Opotiki District Council
- Bay of Plenty Regional Plan – Bay of Plenty Regional Council
- Department of Conservation 'Conservation Management Strategy, East Coast Conservancy, 1998-2008'

Graeme Atkins, accompanied by Tapuwaekura (a collective of Māori educators who reconnect people to natural environments) conducted a field trip on the proposed Te Ara Tipuna trail between Hinetamatea Marae at Anaura Bay, to Iritekura Marae in Waipiro Bay between the 30th of January and 1st of February 2023. Further field trips were planned to support the ecological assessment and the wider Te Ara Tipuna Project Team but they were unable to proceed due to the impact of Cyclones Hale and Gabrielle on the region.

This assessment has been informed by DOC's Guidelines for Assessing Ecological Values (DOC Assessment Guidelines) (Davis et al. (2016), The DOC 'Guide to Preparing Your Environmental Impact Assessment (EIA); and local expert knowledge. The scale of the proposed project is such that a high level approach to the assessment has been taken.

- The Ecological Impact Assessment identifies and assesses areas of ecological significance identified in the Tairāwhiti Resource Management Plan, Opotiki District Plan, and Bay of Plenty Regional Plan that have the potential to be impacted by the track location and/or construction of Te Ara Tipuna.
- High level assessment of ecosystem types potentially impacted by the construction of the proposed track alignment.

Assignment of values within the Project footprint to species, vegetation and habitats (adapted from EIANZ, 2015)

Value	Species Value Requirements	Vegetation/Habitat Value Requirements
Very High	Important for Nationally Threatened species	Meets most of the ecological significance criteria as set out in relevant statutory policies and plans
High	Important for Nationally At Risk species and may provide less suitable habitat for Nationally Threatened species	Meets some of the ecological significance criterion as set out in relevant statutory policies and plans
Moderate-high	May provide less suitable habitat for Nationally At Risk species	Meets one of the ecological significance criteria as set out in the relevant statutory policies and plans
Moderate	No Nationally Threatened or At Risk species, by habitat for locally uncommon or rare species	Habitat type does not meet ecological criteria as set out in the relevant statutory policies and plans but does provide locally important ecosystem services (e.g. erosion and sediment control, and landscape connectivity)
Low	No Nationally Threatened, At Risk or locally uncommon or rare species	Nationally or locally common habitat supporting no Threatened or At Risk species, and does not provide locally important ecosystem services

Evaluation of the magnitude of unmitigated effects on ecological values based on footprint size, intensity and duration

Magnitude of Effect	Description
Very High	Total loss or major alteration of the existing baseline conditions; Total loss or loss of a very high proportion of the known population or range
High	Considerable loss or alteration of existing baseline conditions; Loss of high proportion of the known population or range
Moderate	Moderate loss or alteration to existing baseline conditions; Loss of a moderate proportion of the known population or range
Low	Minor shift away from existing baseline conditions; Minor effect on the known population or range
Negligible	Very slight change from the existing baseline conditions; Negligible effect on the known population or range

Criteria for describing overall levels of ecological effects as outlined in EIANZ, 2015.

Magnitude of effect	Ecological Value			
	Very High	**High**	**Moderate**	**Low**
Very High	Very High	Very High	High	Moderate
High	Very High	Very High	Moderate	Low
Moderate	Very High	High	Low	Very low
Low	Moderate	Low	Low	Very low
Negligible	Low	Very low	Very low	Very low
No effect	No ecological effect	No ecological effect	No ecological effect	No ecological effect

Tairāwhiti Resource Management Plan

Gisborne District Council

Appendix 3.3 Marine Areas of Significant Conservation Value

Site Name	Site Number	Description	Assessment of effects of track location and construction
Waiomoko River Estuary	05-025	Located at Whangara, site comprises the Waiomoko River Estuary, 10ha estuarine system.	Track alignment avoids area of significance and crosses the Waiomoko River above the estuarine area.
Uawa River Estuary *Also recorded as Tolaga Bay Estuary (WR36) in G-11 Schedule	05-022	Rush sedge estuarine wetland, mudflats with adjacent dunelands	The track alignment utilises the Unformed Legal Road adjacent to the Tolaga Bay Estuary. Potential impact through construction in close proximity to estuary

G-11 Schedule

Area Name	Reference	Status	Description	Assessment of effects of track location and construction
Pouawa River Mouth	WR58	Recommended Area For Protection	Small area of estuary and duneland centred on the mouth of the Pouawa River	Track alignment utilises existing road corridor
Makorori Point Recreation Reserve	WP20	Recreation Reserve	Existing walking tracks through planted native restoration coastal forest	Proposed alignment utilises existing track infrastructure

Whitiwhiti Stream Bush	WR57	Recommended Area For Protection	Fragment of coastal hillslope forest	Proposed track alignment avoids the area
Whangara Beach	WR55	Recommended Area For Protection	1km stretch of duneland – spinifex and marram with one planted area of pingao	Track alignment for construction avoids the dune system. Walking access via beach – no construction of tracks
Waihau Road Wetland	WR49	Recommended Area For Protection	8ha wetland dominated by raupo, manuka, and harakeke	Proposed track alignment avoids the area
Tolaga Bay Estuary	WR36	Recommended Area For Protection	rush sedge estuarine wetland, mudflats and adjacent dunelands	The track alignment utilises the Unformed Legal Road adjacent to the Tolaga Bay Estuary. Potential impact through construction in close proximity to estuary

Kaiaua Bush	WR35	Recommended Area For Protection	Primary mixed coastal forest	The proposed track alignment utilises existing tracks and avoids the area
Raponga Stream	WR34	Recommended Area For Protection	Wetland vegetation at the head of the Raponga Stream	Proposed track alignment utilises existing tracks and avoids the wetland area
Waipare and Nuhiti Q Scenic Reserve	WP7	Protected Natural Area (Scenic Reserve) Ngā Whenua Rāhui Kawenata	Secondary lowland Forest, kanuka and Manuka regrowth	Two potential track alignments are proposed for this area, one requires track construction through the Scenic Reserve
Tauhiti	WR19	Recommended Area For Protection	Secondary growth forest dominated by kanuka	Track alignment follows the Unformed Legal Road and will affect the ecological values of this area

Waimahuru Bay Scenic Reserve	WP5	Protected Natural Area (Scenic Reserve)	Predominantly secondary growth coastal forest with remnants of primary forest remaining in gullies	Track alignment avoids area
Mataahu Wetland	WR16	Regionally significant wetland	Unmodified wetlands on Mataahu Plateau, high water quality	Track alignment avoids wetland
Hikurangi	WR125		Regionally significant indigenous subalpine forest	Track alignment utilises existing track infrastructure
Aupouri Bush No. 2	WR123		Indigenous forest area	Track alignment avoids area

Kuratau	WR8	Recommended Area For Protection	Primary and Secondary indigenous forest	Track alignment avoids area
Rangiata	PR16	Recommended Area For Protection	Lowland Coastal Podocarp Forest – Tawapou	Track alignment altered to avoid area
Hautai	PR19	Recommended Area For Protection	Sand dune system	Track alignment altered to avoid area
Te Whare Wetland	G17	Regionally Significant Water body	Freshwater and Estuarine wetland	Track alignment utilises existing roadway to avoid area

Te Koau	PR1	Recommended Area For Protection	Coastal and lowland to lower-montane and upper-montane vegetation types	Track alignment passes through this area and construction will impact ecological values
Wharekahika Pond and Bush	Pr30 Oxbow	Regionally Significant Water body	Unmodified Oxbow -raupo and Kahikatea	Track alignment follows Wharekahika River and avoids area
Pukehapopo	Nga Whenua Rahui Kawenata	Not identified on District Plan	Protected area adjacent to the Waiomoko River Mouth	Track alignment does not cross the Kawenata area

Opotiki District Plan

Opotiki District Council

Identified areas in Opotiki District: Outstanding Natural Landscapes and IBDAs

Site Name	Reference	Description	Values	Assessment of effects of track location and construction
Whangaparaoa Dunefield, Wetland and Estuary	19	An extensive coastal duneland with intact cover of vegetation, wetlands and river system backing a long open beach.	High Natural Values – highly dynamic natural dune formation	Potential impact on area during construction as the proposed alignment borders the dunefield while transitioning from SH35 to the beach. Actual alignment of track to be determined to avoid impacting dunefield.

Oruaiti Beach, offshore rocks and Waikanapanapa cliff	18	An area extending from the rocky shoreline incorporating the beach and adjacent sand dunes	Moderate to High Natural Science Factors attributed to the coastal dunes and beach and rocky shoreline	Limited construction planned in the area identified. Potential walkway access to transition from beach back to SH35
Raukokore River Mouth	17	distinctive river mouth, lagoon and stoney shore the feature includes the native bush along the river margin and dune area	High Natural Science factors relate to its large scale river mouth and dynamic nature of the river	Planned alignment utilises existing SH35 infrastructure to cross the Raukokore River. The alignment of the track where it leaves diverts from SH35 avoids construction in the area of significance.
Whanarua Bay	16	Narrow rocky shoreline, volcanic rock, Pohutukawa landscape	Moderate to High Natural Science Factors attributed to the small rocky island and shoreline with pockets of native vegetation.	The track alignment proceeds through this area but no track construction is planned. The small rocky island (15) will not be impacted by the project.

Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point	14	A large coastline dominated by a rocky shoreline and native vegetation cover.	Moderate to High Natural science factors this coastline provides a steep coastline and native vegetation.	Two track alignments are proposed for this area to accomodate and separate walkers, cyclists and horses. One avoids the area and will not impact the site. The second proposed track alignment will impact the area and its ecological values.
Motu River Mouth	13	Highly distinctive large river mouth, the Motu River provides a braided river mouth alongside a steep bush clad hill range.	Identified as an area of Very High Natural character at a Regional level, the extent of the feature resides in part Regional Council and part Ōpōtiki District Council jurisdiction. High Natural Science factors relate to its large scale river mouth and native vegetation.	The proposed track alignment utilises the existing SH35 infrastructure and as such construction impact on the area will be limited. A transition from SH35 to the beach is proposed adjacent to the area. Further analysis will need to be completed to finalise track alignment in relation to the area.

Haumiaroa Point Whituare Bay Maraenui Escarpment (Whituare Bay)	10 11 12	collection of individually identified features as one larger feature, this coastline comprises the formation of a coastal escarpment and headlands that extend between Hawai and Haupoto. Comprising steep coastal escarpments clad with native bush cover.	The area is identified as having High Natural Character at a regional level and moderate to high natural science values.	The proposed track alignment utilises the existing SH35 infrastructure through this area. Construction impact on the area will be limited.
Pehitairi Point	9	Steep headland with intact indigenous vegetation cover existing across the entire headland. Whilst not rare it is a distinctive feature that defines the end of an embayment.	Very High Natural character. Moderate to High Natural science factors .	The proposed track alignment does not impact this area.

Haurere Point	8	Steep headland with intact indigenous vegetation cover existing across the entire headland.	Very High Natural character. Moderate to High Natural science factors .	The proposed track alignment does not impact this area
Tirohanga Dunes Conservation Area	Conservation Area - DOC S.25 Stewardship Area	Extensive dune system	Not recorded in District Plan	The Tirohanga Dunes Trail was constructed through the Conservation Area in 2005 and forms part of the Motu Trails (Ngā Haerenga NZ Cycle Trails.) Limited impact on the existing ecological values as the trail will utilise the existing Dune Trail.

Assessment of Impacts and Mitigations

In accordance with criteria for describing overall levels of ecological effects as outlined in EIANZ, 2015.

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Tairāwhiti: Appendix 3.3 Marine Areas of Significant Conservation Value

Site Name	Site Number	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of unmitigated effect on ecological values	Criteria for describing overall levels of ecological effects with mitigations
Waiomoko River Estuary	05-025	High	Low Track alignment avoids estuarine and dune area with at least a 10m buffer.	Low
Uawa River Estuary *Also recorded as Tolaga Bay Estuary (WR36) in G-11 Schedule	05-022	High	Low Track alignment avoids areas of ecological significance , 10m buffer for area of interest has been incorporated in to the design to mitigate impact. Site visit to confirm track alignment.	Low

G-11 Schedule

Area Name	Reference	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of effect on ecological values	Criteria for describing overall levels of ecological effects
Pouawa River Mouth	WR58	High	Low Proposed track alignment utilises existing road corridor - avoids areas of ecological significance (estuarine and dune areas.)	Low
Makorori Point Recreation Reserve	WP20	Moderate	Low Proposed track alignment utilises existing track infrastructure.	Low
Whitiwhiti Stream Bush	WR57	High	Low Proposed track alignment avoids area of ecological significance.	Low

Whangara Beach	WR55	High	Moderate Proposed track alignment transitions from the beach close to the area of significance.	Low With mitigations; Proposed track alignment on beach via unformed track (no construction proposed on dune environment.) Where the proposed track transitions from the beach the dune environment will be avoided and appropriate construction techniques employed. Construction timed to avoid dotterel nesting season if required. Pre construction site visit recommended.
Waihau Road Wetland	WR49	High	Low Proposed track alignment avoids area of significance.	Low

Tolaga Bay Estuary	WR36	High	Low Track alignment avoids areas of ecological significance. .	Low Mitigations: 10m buffer for area of interest has been incorporated in to the design to mitigate impact. Site visit to confirm track alignment
Kaiaua Bush	WR35	High	Low The proposed track alignment utilises existing tracks and avoids the area of significance.	Low
Raponga Stream	WR34	High	Low Proposed track alignment utilises exisiting tracks and avoids wetland area. Site visit prior to construction to confirm 10m wetland buffer.	Low

Waipare and Nuhiti Q Scenic Reserve	WP7	High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low With mitigations: site visit prior to construction to determine exact track location, track location to avoid mature trees, ecological survey recommended to determine species of significance on proposed track, appropriate track constuction techniques employed to avoid impact on secondary growth forest, replanting of ecosourced trees in areas identified as appropriate.
Tauhiti	WR19	High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low The mitigations for Waipare and Nuhiti Q Scenic Reserve will be applied to Tauhiti.

Mataahu Wetland	WR16	High	Low Proposed track alignment avoids area of significance. 10m wetland buffer exceeded.	Low
Hikurangi	WR125	Very High	Low Proposed track alignment utilises exisiting track infrastructure.	Low With mitigations: Due to the ecological significance of this area site visits and ecological surveys are recommended to inform the detailed design phase.
Pukehapopo	Nga Whenua Rahui Kawenata	High	Low Proposed track alignment does not impact the area.	Low

Aupouri Bush No. 2	WR123	Moderate	Low Proposed track alignment avoids area.	Low
Kuratau	WR8	High	Low Proposed track alignment avoids area.	Low
Rangiata	PR16	High	Low Proposed track alignment avoids area.	Low
Hautai	PR19	High	Low Proposed track alignment avoids area.	Low

Te Whare Wetland	G17	High	Low Proposed track alignment utilises exisiting roadway to avoid area.	Low
Te Koau	PR1	Very High	Moderate The proposed track alignment has the potential to impact the ecological values of the area.	Low With mitigations: Site visit informed by local ecological expertise recommended to inform detailed track design, Ecological survey conducted, track design to avoid mature trees and areas of significance identified in survey, appropriate track construction methods employed, replanting with eco-sourced trees in any areas identified required,
Wharekahika Pond and Bush	Pr30 Oxbow	High	Low Proposed track design avoids area	Low

Identified areas in Opotiki District: Outstanding Natural Landscapes and IBDAs

Site Name	Reference	Assignment of values within the Project footprint to species, vegetation and habitats	Evaluation of magnitude of effect on ecological values	Criteria for describing overall levels of ecological effects
Whangaparaoa Dunefield, Wetland and Estuary	19 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	High	Moderate The proposed track alignment at the transition from beach to SH35 is adjacent to the dunefield.	Low With mitigations: Site visit and detailed design recomended to ensure that construction does not impact are of significance. 10m buffer for wetland included in design.
Oruaiti Beach, offshore rocks and Waikanapanapa Cliff	18 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Moderate High	Moderate The proposed track alignment transitions from beach to SH35.	Low With mitigations: Site visit and detailed design recomended to ensure construction does not impact area of significance.

Raukokore River Mouth	17 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	High	Low Proposed track alignment utilises road corridor/bridge. Track diversion from SH35 avoids area of significance.	Low
Whanarua Bay	16 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Moderate High	Negligible No track construction planned in this area.	Very Low
Orangoihunui Point & Whitianga Bay, Whitianga Bay to Ohae Point	14	Moderate High	Moderate Two track alignments are proposed for this area to accomodate and separate walkers, cyclists and horses. One avoids the area and will not impact the site. The second proposed track alignment will impact the area and its ecological values.	Low With mitigations: Site visits will inform detailed design to limit vegetation clearing, appropriate track material and construction methods will be required to mitigate impacts on ecological values.

Motu River Mouth	13 13.3.2.4 Indigenous Vegetation Disturbance in IBDA	Very High	Low Proposed track alignment utilises road and SH35 bridge. Where the track transitions away from SH35 the proposed alignment avoids the area of significance.	Low
Haumiaroa Point Whituare Bay Maraenui Escarpment (Whituare Bay)	10/11/12	High	Low Proposed track alignment utilises exisitng road corridor (SH35)	Low
Pehitairi Point	9	Very High	Negligible Proposed track alignment does not impact the area.	Low
Haurere Point	8	Very High	Low Proposed track alignment does not impact the area.	Low
Tirohanga Dunes Conservation Area	Conservation Area - DOC S.25 Stewardship Area, 13.3.2.5 Indigenous Vegetation Disturbance in IBDA	High	Low Proposed track utilises existing track infrastructure.	Low

AREAS OF SIGNIFICANCE NOT IDENTIFIED IN DISTRICT PLANS

TE TAPUWAE O RONGOKAKO MARINE RESERVE – POUAWA

2450ha of 8 marine habitat types including inshore reefs, rocky inter-tidal platforms, and sediment flats.

- Established in 1999 by Ngāti Konohi and Department of Conservation
- Nesting site for NZ Dotterels
- The proposed track alignment utilises the existing road way where it approaches the Marine Reserve then transitions to adjoining farmland without disturbing the Reserve.

NGĀ WHENUA RĀHUI KAWENATA

- 3 Ngā Whenua Rāhui Kawenata that are potentially impacted by the construction of Te Ara Tipuna have been identified and included within the Tairāwhiti Resource Management Plan assessments; Anaura, Nuhiti Q, and Pukehapopo.
- No Ngā Whenua Rāhui Kawenata that could be affected by Te Ara Tipuna have been identified within the Opotiki District Council area.

QEII NATIONAL TRUST

No QEII Covenanted areas that have the potential to be impacted by the construction of Te Ara Tipuna have been identified.

Wetlands

Wetlands as defined in the Tairāwhiti Resource Management Plan includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. Wetland ‘margins’ shall be the dry land area associated with a wetland, to the extent that the predominant vegetation is adapted to wet conditions.

The Opotiki District Plan defines wetlands as Includes permanently or intermittently wet areas, shallow water and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions. For the avoidance of doubt, the term “wetland’ applies to water bodies and intermittently wet areas.

With regard to the National Environmental Standards for Freshwater as it relate to wetlands, The constructio of Te Ara Tipuna will not:

- Clear vegetation within, or within a 10-metre setback of, a natural wetland
- Undertake earthworks or land disturbance within, or within a 10-metre setback of, a natural wetland (or 100m if it is likely that the works will result in any drainage of a natural wetland)

Undertake the taking, use, damming, diversion, or discharge of water within, or within a 100-metre setback of, a natural wetland

Wetlands identified within areas of significance assessed within this report have been avoided through the track planning and design stage. The proposed track alignment avoids areas identified as wetlands and provides for a minimum 10m buffer zone. There will be no discharge to wetlands.

Where wetlands (that have not been included within this report) as defined above are identified during the detail design phase (the recommended approach will be to avoid through alteration of the track alignment , creation of a 10m buffer, and the employment of appropriate construction methods for such areas; ie sediment control. Ecolgocial assessments by an appropriate expert may be beneficial to determine boundaries of wetlands.

INDIGENOUS VEGETATION OPOTIKI DISTRICT COUNCIL

This report identifies that the proposed track alignment has the potential to impact the Whangaparaoa Dunefield, Oruaiti Beach, and Orangoihunui Point. Specific recommendations for mitigations are made within the report and site visits will be required during the detailed design phase to enusre all effects are minor or less. The proposed alignment of the track avoids significant areas as the first tool to mitigate impact.

The proposed track alignment may impact areas identified as IDBA A and IDBA B separate to the areas of significance and Outstanding Natural Features assessed within this report. These areas will be identified during the detailed design phase and the effects of the location and track construction on these areas will be assessed during this stage. Mitigations will be implemented to ensure that requirements and conditions are adhered to.