TE RARAWA

Cultural Impact Assessment

Kaikohe Waste Water Treatment Plant | September 2021

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Mana whenua members:

Te Rūnanga o Te Rarawa	Haami Piripi| Runanga Chairperson
Waiparera marae	Matilda Bercic| Marae Delegate| Runanga trustee
Waihou marae	Makere Ngaropo| Marae Delegate| Runanga trustee
Waipuna marae	Abraham Witana| Marae Delegate| Runanga vice Chair
Ngati Manawa marae	Rihari Dargaville| Marae Delegate| Runanga trustee
Motuti marae	Desire'e Andrews| Marae Delegate| Runanga trustee
Ngai Tupoto marae	Hoana Smith| Marae Delegate| Runanga Treasurer

Project Manager:

Louise Mischewski|Author|Te Rūnanga o Te Rarawa (Kaiwhakahaere o Te Taiao Pou).

Acknowledgement:

This report could not have been written without mana whenua representatives; who gave their time to review, provide insight and give their endorsement on behalf of their hapū marae.

Contents

1. Introduction

1.1 A Cultural Impact Assessment from Te Rūnanga o Te Rarawa is being sought because Te Rarawa have a Statutory Acknowledgment over the Hokianga Harbour and it is considered likely that the activity has adverse effects on tangata whenua and their taonga, the detail of which is outlined in the sections that follow. The purpose for a Statutory Acknowledgement is –

a) To require relevant consent authorities, the Environment Court, and Heritage New Zealand (Pouhere Taonga) to have regard to the statutory acknowledgement; and

b) To require relevant consent authorities to record the statutory acknowledgement on statutory plans that relate to the statutory areas and to provide summaries of resource consent applications or copies of notices of applications to the trustees; and

c) To enable the trustees and any member of Te Rarawa to cite the statutory acknowledgement as evidence of the association of Te Rarawa with a statutory area.

1.2 Discharges from the Kaikohe wastewater treatment plant are authorised by a resource consent. The resource consent sets out certain conditions, such as the requirement to regularly monitor the treated wastewater.

1.3 The existing discharge is authorised by CON20100241701, which was granted in August 2005, is set to expire on 30 November 2021. The WWTP treats municipal wastewater from Kaikohe Township and sewage and sludge from the septic tanks of domestic sites across the district. The wastewater is treated through a series of ponds and constructed wetlands prior to its discharge into an unnamed tributary of the Wairoro Stream.

1.4 This Cultural Impact Assessment (CIA) has been prepared on behalf of Te Rūnanga o Te Rarawa and its hapū constituents in response to the renewal of the resource consent for treated wastewater disposal into the Wairoro Stream, where through hydrology, eventuates in the Hokianga Harbour.

2. Key aspects

2.1 Far North District Council (FNDC) has been undertaking a range of investigations considering long-term wastewater treatment options, including significant upgrades to treatment plant(s) throughout Te Taitokerau and discharge to land options, and has committed funding to expand the options assessments and engage with tangata whenua to inform the process.

2.2 As WWTP's must continue to operate until upgrades or alternative disposal methods are developed, FNDC is seeking an interim discharge consent to enable the continued operation of the plant, with a range of proposed improvements to the plant's operation. To enable the implementation of short- and medium-term improvements while providing sufficient time for the development of a long-term solution, FNDC is requesting a consent duration of 15 years for both the Kaitaia and Kaikohe WWTP.

2.3 The author of this CIA is aware that:

a) If FNDC has lodged the new application by 30 August 2021, they can continue to legally operate the plant under the existing consent for as long as it takes for the new consent to be granted. This is allowed for under the Resource Management Act 1991.

b) There is an opportunity to include conditions agreed between FNDC and Te Rarawa.

c) Changing the method for discharge from water to land may mean further increase in rate charges.

3. Summary of consents required

3.1 Consents are required pursuant to s15 of the RMA, relating to the discharge of treated wastewater from the treatment plant to a natural stream and wetland system. This is provided for by:

a) Regulation 47(3) of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESF) for the discharge of water (associated with the operation of specified infrastructure) within, or within a 100m setback from, a natural wetland as a restricted discretionary activity; and
b) Rule C.6.2.2 of the Proposed Northland Regional Plan (PRP) for the discharge of treated wastewater from a wastewater treatment plant into water and any associated discharge of odour into air resulting from the discharge as a discretionary activity.

4. Report Structure

4.1 Background: Sections 1 - 5 presents the approach that has been used to assess the impacts to Te Rarawa of the proposed resource consent.

4.2 Cultural Significance: Sections 6 – 10 describes Te Rarawa's relationship with the Hokianga Harbour catchment in the context that it has become the receiving environment for discharge of contaminants. It draws on Te Rarawa evidence that strongly suggests this relationship has been degraded by point source contamination from Wastewater Treatment Plants (Kaikohe being one such plant) to the point where, in a practical sense, this relationship no longer exists.

4.3 Kaikohe: Section 11 sets out the policy framework that is relevant to the application. There are five policies and other documents that make up this framework; The Resource Management Act 1991, National Policy Statement for Freshwater Management 2020, Te Mana o Te Wai proposed reforms, FNDC Treated Water Supply Bylaw, and Te Rarawa Land Claims Settlement Act 2015 – Statutory Acknowledgement for the Hokianga Harbour.

4.4 Recommendations: Section 12 presents the position of Te Runanga for Far North District Council consideration.

4.5 Appendix A: presents supplementary information from TROTR Cultural Impact Assessment for the Kaitaia WWTP.

4.6 Appendix B: supplementary information from Motuti marae.

4.7 Bibliography: documents drawn upon for reference.

5. Assessment Approach

5.1 The approach that has been used to assess the impacts to tangata whenua of the proposed discharge has involved:

(1) Identifying tangata whenua concerns and values for the Hokianga Harbour Catchment, and measurements for a healthy catchment that sustains them physically, spiritually, culturally, and emotionally.
(2) Understanding the state of tangata whenua relationship using documents prepared by or for them.
(3) Understanding the current condition of the Hokianga Harbour catchment drawing on the state of the environment and other technical reports prepared by or for the Northland Regional and Far North District council.
(4) Comparing the impacts of the proposed discharge with the current discharge to assess whether there will be improvement, or not.
(5) Comparing the impacts of the proposed discharge to evaluate whether the new regime will meet National Freshwater Policy Standards and Te Mana o Te Wai management reforms.

5.2 Drawing on Māori models of health and wellbeing, a significant part of this CIA is determining whether adverse effects on cultural values can be avoided, remedied, or mitigated. The following components form the basis of the framework that has been used to assess the cultural impacts on Te Rarawa of the treated effluent discharge. For Te Rarawa today, fulfilling kaitiaki obligations is about two things: 1) restoring the health of the Hokianga Harbour catchment and the ability of future generations to use it, and 2) reclaiming some control (mana whakahāere) over activities that affect the Harbour. In 1999 Ta Mason Durie (Assistant Vice Chancellor Māori, Massey University) submitted a paper to the Health Promotion Forum of New Zealand Newsletter titled *Te Pae Mahutonga – A Model for Māori Health Promotion*. In this article, Professor Durie explored the connections between environmental health and the well-being of Māori communities generally. Professor Durie suggests that the key determinants of cultural health such as identity, environment, and economics are inextricably interlinked and must be understood when assessing the status of Māori health in contemporary New Zealand society. Professor Durie's model was applied and appropriately tailored to assess the impacts of the proposed wastewater treatment options. Durie's model for assessing the status of Māori cultural health comprises the following key concepts:

Māori Concepts of Health

Mauriora Strong cultural identity	Mauriora rests on a secure cultural identity. Good health depends on many factors but among indigenous peoples throughout the world, cultural identity is considered to be a critical prerequisite. De-culturation has been associated with poor health, whereas acculturation has been linked to good health. A goal of health promotion therefore is to promote security of identity.
Waiora Environmental protection	Maintaining high standards of environmental protection and quality are linked to both individual and community good health. Therefore, health promotion must take into account the nature and quality of the interaction between people and their surrounding environment.
Taiora Physical health/wellbeing	Taiora relates to reducing risks to health from various real and potential impacts. This may include ensuring water is free from pollutants, air can be breathed without inhaling irritants or toxins, noise levels are managed, people can freely engage with the environment.
Te Oranga Participation Engagement Development	It is well recognised that health promotion is interlinked with socio-economic circumstances. Whilst identity and environmental quality are important to cultural health, it is the ability to engage and input into decisions that affect one's community that strengthen one's sense of wellbeing. Health promotion is about enhancing the levels of wellbeing, te oranga, through increased participation in society.
Mana Whakahaere Control mechanism(s)	To engage and provide input into decisions that affect one's community and strengthen one's sense of wellbeing, gives the community the jurisdiction to control and administer the levels of wellbeing that meets their tolerance or threshold.

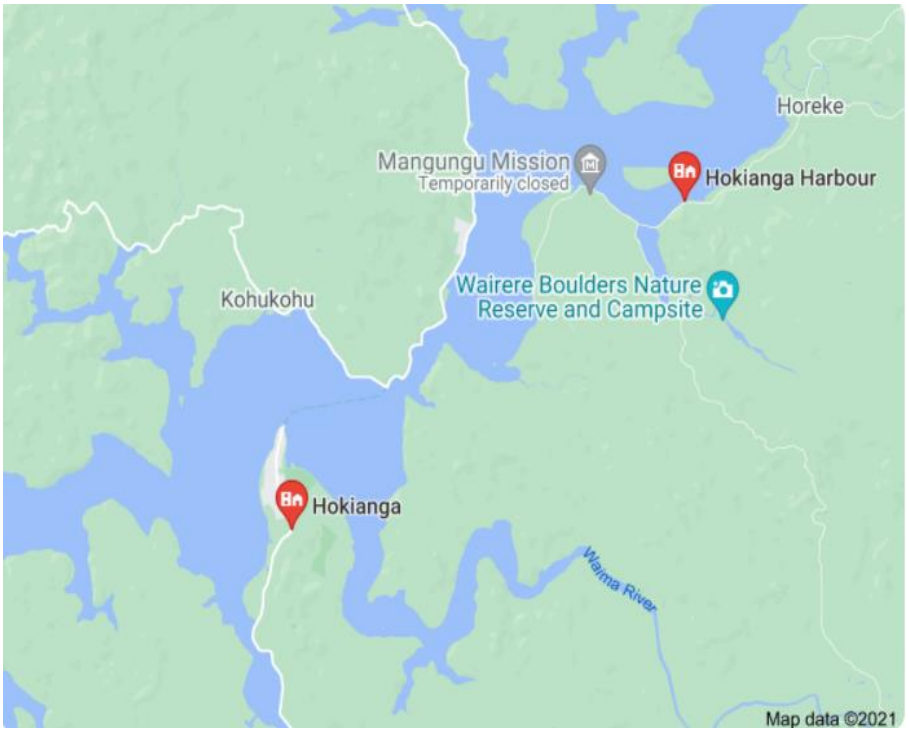
6. Section: Te Rarawa's relationship with the Hokianga Harbour Catchment

6.1 Although tribal histories differ from one hapū to another, there are fundamental beliefs and values associated with the natural environment which are similar or shared. These shared values are the basis of this CIA, reflecting the aspirations of "tangata whenua" throughout the report.

6.2 Te Rarawa is a confederation made up of 23 hapū marae. Te Rarawa and several associated hapū emerged as a confederation prior to the arrival of European in Aotearoa.

6.3 Traditionally hapū were part of a dynamic society with well organised social, cultural, political, and economic systems. These systems were built on a network of reciprocal relationships where the confederation of allied communities would come together, when necessary, to combine their resources as an Iwi. Te Rarawa and affiliated hapū established themselves in and around the Hokianga, Whangape and Owhata Harbours, Te Oneroa a Tohe, Tangonge and areas lying inland to the Maungataniwha ranges (Muriwhenua Report, 1997).

6.4 Te Rarawa's traditional systems of land tenure was based on mana tūpuna (ancestral right) and ahi kaa roa (continuous occupation). These systems could accommodate multiple and overlapping interests and were responsive to complex and fluid customary land usages. Hapū held land rights. Rangatira controlled land use, provided for whanau and hapū occupation and protected the resources for future generations. Hapū and whanau exercised those rights from occupation. Establishing and maintaining relationships were a key factor in this system. Outsiders could only enjoy rights given by the Rangatira including land usage. Such right depended on ongoing occupation (ahikaa roa) and conformity to local tikanga.



6.5 From the early 1800's, Te Rarawa began to foster relationships with European sawyers, traders and missionaries. Te Rarawa wanted to expand their economic activities and take advantage of developing technological opportunities and allowed a number of these settlers to live on their land. During the 1820's the Hokianga Harbour became an important hub for the export of kauri timber and trade in pork, potatoes, and flax. In the following decade ship building became a key industry. Similarly, the Kaitaia district became an important area for early settlement and missionary activity. Te Rarawa extended hospitality to the new arrivals, many of whom intermarried with Māori, but expected them to adhere to tikanga.

6.6 Hokianga and its tributaries is regarded as one of the most important mahinga kai (food production area) in the Far North. For countless generations, several whanau and hapū use and manage the freshwater and saltwater fishery, bird life, gardens and other natural resources contributing enormously to the local economy's health and wellbeing. Inanga (whitebait), kēwai (freshwater crayfish), and tuna (eel) were

commonly fished along rivers and streams leading into the Harbour itself. Kina (sea urchin), kutai (mussel), pipi, tipa (scallop), tio (oyster), including a variety of fish species such as kingfish, kahawai, gurnard, ngakoikoi (rock cod), maomao, karatī (small snapper), pātiki (flounder) and kanae (mullet). Today, reef fish such as maomao and ngakoikoi are rarely seen or caught in the harbour, which often suggests there is something not quite right within the ecosystem. Karatī, kahawai, kanae and various shellfish remains a staple food diet for local hapū, although they are not as abundant as they once were. Due to the increase in climate temperatures and low water flows, toxic algae bloom warnings have become frequent each year. This has had a cultural and emotional impact to tangata whenua.

6.7 The collective vision of tangata whenua is to protect their taonga from further degradation. The ability to exercise tikanga in relation to the Harbour relies on being able to use the Harbour.

6.8 Prof. Mason Durie (1998) defines kaitiakitanga as the burden incumbent on tangata whenua to be guardians of a resource or taonga for future generations. Local tangata whenua carry this burden, but their ability to safeguard the Hokianga Harbour catchment for future generations has been severely diminished by pollution, and by not being able to control (mana whakahaere) that pollution. In the context of the application for consent, such control is exercised by Northland Regional Council and or Far North District Council.

6.9 Restoring the health of the freshwater and saltwater catchment is not just about meeting all science-based targets, although to do so would be a significant step in the right direction. The cultural health of the Hokianga Harbour goes beyond physical parameters to also encompass spiritual, cultural, and emotional dimensions. These aspects might serve as additional criteria for assessing the proposed consent, and the mauri or life force of the Wairoro Stream and the watercourses interconnected to it. For each criterion, indicators might be applied, and questions might be posed that enable the catchment to be assessed in finer detail e.g., Spiritual: is the river waahi whakamoemiti (a place of spiritual cleansing)? Cultural: is the river wai Māori (a freshwater supply)? Is the river mahinga kai (a traditional source of food supply)? Emotional: is the river a safe waahi takaro (recreational place) for children?

7. Section: History of the Hokianga-nui-a-Kupe

7.1 The Hokianga is in the Far North District, Northland Region. The area is 120 kilometres northwest of Whangarei—and 40 kilometres west of Kaikohe—by road. The estuary extends inland for 30 kilometres from the Tasman Sea. It is navigable by small craft for much of its length, although there is a bar across the mouth.

7.2 12,000 years ago, the Hokianga was a river valley flanked by steep bush-clad hills. As the last ice age regressed, the dramatic rise in sea level slowly flooded the valley turning it into a tidal saltwater harbour with abundant sheltered deep-water anchorages. This was the harbour that the Polynesian explorer Kupe left from.

7.3 Southern right whales possibly frequented the bay historically, prior to significant depletion of the species caused by commercial and illegal hunting. Today, large whales are rarely seen in the bay, although the harbour is a well-regarded area in which to watch smaller dolphins and killer whales.

7.4 The area around the harbour is divided in three by the estuary. To the south are the settlements of Waimamaku, Omapere, Opononi, Pakanae, Koutu, Whirinaki, Rawene, Waima, and Taheke; to the north are Pawarenga, Panguru, Rangi Point, and Mitimiti; and at the top of the harbour upstream from the narrows are Kohukohu, Horeke, Utakura, and Mangamuka.

7.5 The communities of Horeke and Rawene are the second and third oldest European settlements in New Zealand. Rawene is still one of the most important of the coastal settlements in the Hokianga and is where the base of Hokianga's community owned health services (Hauora Hokianga) is located, on top of the hill at the Hokianga Hospital.

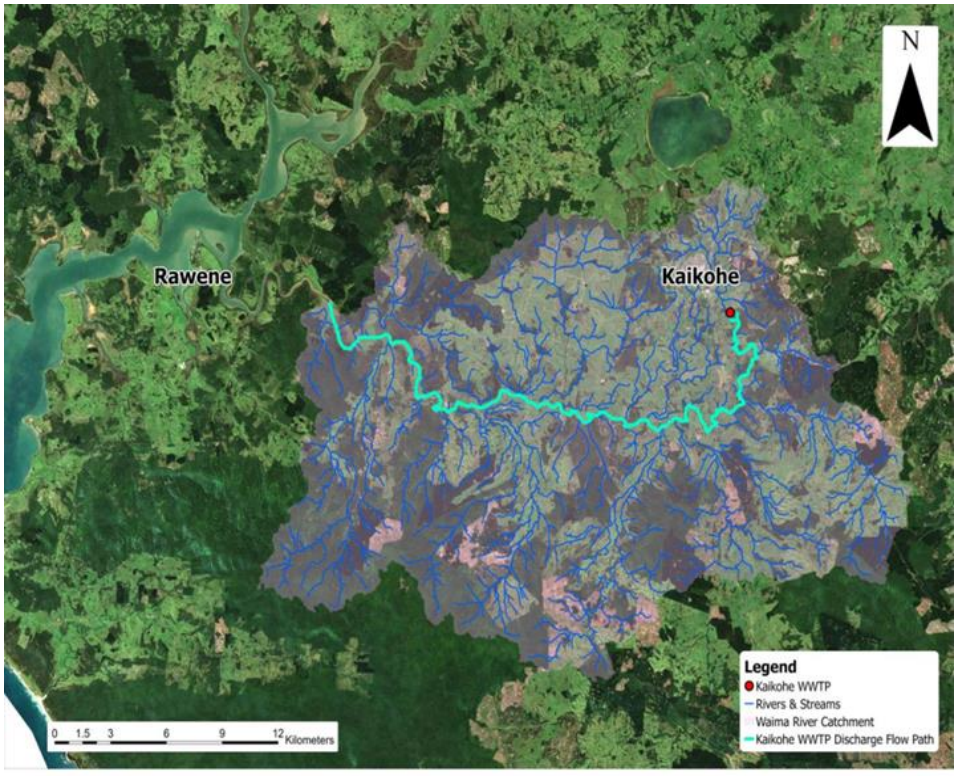
7.6 In recent years, tourism has become of significance to the region. Attractions such as the great kauri trees of the Waipoua Forest (including the country's largest tree, Tane Mahuta), Manea: Footprints of Kupe, the historic waterfront villages of Opononi, Kohukohu and Rawene, cafes, the Horeke basalts, beaches, sand dunes, historic buildings, nature walks, horse trekking, boat trips, camping and fishing are bringing more visitors every year.

8. Section: Tangata whenua values associated with Wai.

8.1 Ancestral relationship.

The way in which tangata whenua view wai is culturally unique; this section gives an overview of some of these cultural values to raise Council awareness and understanding of key considerations in the management of waterways.

Te Tiriti o Waitangi promised Crown protection of Māori custom and cultural values – a right that extends to the protection of tino rangatiratanga. However, these rights have not been upheld by Council, and tangata whenua have gradually lost control over wai and the resources connected with waterways in the rohe. Despite this loss of customary right, wai remains an integral part of tangata whenua life. Wai is a taonga tuku iho – a resource, which is still integral to tangata whenua customs and traditions. Maintaining and enhancing the health and wellbeing of wai is an ongoing concern for tangata whenua.



Flow path of discharge from the Kaikohe WWTP

Additionally, for tangata whenua, the Hokianga Harbour and its tributaries was central to the wellbeing and survival of tūpuna (ancestors) living in the rohe. Rivers provided natural pathways for accessing inland areas, where many resources could be gathered. The whole catchment was important for harvesting resources – from the mountain streams and lakes, the river valleys, wetlands, waipuna (springs), ground water and the river mouths – where many of the permanent settlements were located. Customs and cultural values associated with wai were an integral part of traditional life; maintaining the life supporting capacity of wai remains central to the lives of

present day tangata whenua. Rivers and associated tributaries are important geological markers for tangata whenua to explain where they come from – rivers provide a link between the past and the present.

Through their whakapapa (ancestral ties) and spiritual relationship with ngā atua (spiritual guardians), tangata whenua believe they have a duty to their ancestors (those living and those to come) to take care and protect wai and other taonga (treasures). Manawhenua members are the ahi kaa kaitiaki – a duty demonstrated in the practice of kaitiakitanga to this day. For tangata whenua, their spiritual and physical survival is dependent on manawhenua ability to safeguard resources as kaitiaki (guardians) of an area. The kaitiaki role is focused on making decisions about how to manage wai, using mātauranga (local knowledge), according to customary tradition and practices. Examples of customary practices kaitiaki use include acknowledging ngā atua before utilising resources connected with wai; working to enhance the health of waterways; using wai for cleansing purposes; maintaining mahinga mātaitai (food baskets); and looking after others using resources from wai catchments.

8.2 Protecting the mauri of wai.

As kaitiaki, manawhenua are responsible for protecting the mauri (life force) and wairua (spirit) of the wai flowing through the waterways and from springs across the rohe. Mauri gives being and form to rivers, streams, and other water bodies. Wairua is closely associated with the mauri, because the spiritual and physical elements of wai are joined together by the life force. Therefore, protecting the mauri and wairua of wai is the controlling management principal for tangata whenua. Tohu or environmental indicators are essential for measuring the health and well-being of wai (water).

From a Māori world view (te ao Māori), wai is a living taonga, classified under Article II of the Treaty of Waitangi. A sacred treasure, wai symbolises the spiritual link between past and present. The lifeblood of Papatuanuku and the tears of Ranginui, wai flows through the land via channels and waterways, creating wetlands, streams, and swamps on its path. Waterways connect the mountains with the sea. For tangata whenua, the spiritual and physical relationship with wai is intertwined – both elements are essential to life. On a spiritual level, wai and the life wai sustains, are treasures within the realms of ngā atua kaitiaki (spiritual guardians). Tangaroa is the spiritual guardian of wai and Tane Mahuta of the forests, trees and birds living along riverbanks and in the surrounding catchments. The origin of all things is reflected in the belief that everything has a mauri (life force) and a wairua (spirit). In recognition of the mauri and wairua that exists in all taonga, wai is considered sacred (tapu). For tangata whenua, wai is the source of all life. Life cannot survive without wai. Gravity brings forth the flow of wai from mountains and springs, through a network of tributaries to where freshwater meets the saltwater estuaries along the coastline.

The health of a water body is also an indication of the health of ngā atua (the spiritual guardians) and tangata whenua. Where wai has been compromised by human activities, this has a negative impact on the spiritual guardians and people. The discharge of human effluent in our wai, whether treated or not, is unacceptable. In such cases, tangata whenua are concerned with enhancing the mauri (life force) to a level where physical and spiritual health of the water way can be sustained. Maintaining the integrity of wai is central to maintaining the cultural identity of tangata whenua. Protecting the mauri of wai is vital for ensuring wai can sustain everyone who lives in the rohe (district).

8.3 Use of mātauranga and application of tikanga.

The use of mātauranga and tikanga is fundamental in the management of wai (water). Healthy water bodies sustain a diverse range of indigenous habitats and their inhabitants. The mātauranga associated with those habitats and indigenous species underpin the cultural identity of tangata whenua – this mātauranga forms the basis of tangata whenua tikanga. Loss of biodiversity is not only an affront to ngā atua of those taonga; it also results in the loss of cultural identity through the inability to apply mātauranga and tikanga connected with those resources.

The value tangata whenua attach to catchments is reflected in the use of waahi ingoa (names), whakatauki (proverbs), karakia (prayer) and waiata (song) to describe different parts of the landscape, including features relating to wai (water). Every mountain, hill, waterway, and valley connected with wai is named. Many names and whakatauki describe the value tūpuna (ancestors) placed on the state of the resources or relationships within a catchment.

8.4 Maintaining customary use.

The customary practice of gathering food and other resources from waterways in the rohe is part of tangata whenua life. Using resources is fundamental to being Māori. Traditionally, mahinga mātaitai (food gathering areas) associated with wai were used to sustain the spiritual and physical wellbeing of manawhenua. Although fewer mahinga mātaitai exist today, they are still an important part of cultural life. Tangata whenua continue to maintain core cultural values such as manaakitanga – providing hospitality to visitors, by offering local specialities from the area. If food baskets are healthy, this reflects on the mana (status) and wellbeing of the tangata whenua, and their ability to look after local resources as the kaitiaki (guardians) of the rohe (district). Customary use also relates to the use of flora and fauna and other materials for medicinal or building purposes.

8.5 Protecting waahi tapu and waahi taonga associated with wai.

There are numerous waahi tapu (sacred places and sites) associated with catchments across the rohe. Waahi tapu provide tangata whenua with a physical and spiritual link to their tūpuna (ancestors). Places or sites become known as waahi tapu because of associations with tapu events, koiwi (human remains) or tapu objects. Waahi tapu can also signify ahi kaa roa (long-term residency) in an area – they are indicators of tangata whenua identity, confirmed and protected using tapu. As kaitiaki, tangata whenua are responsible for the protection of waahi tapu in their rohe. River valleys were used by manawhenua to access food and other resources. Remains of traditional camp sites used as a base from which to gather seasonal food and waka landing sites are widespread along waterways in the rohe (district). Sites are often found near wetlands or at the confluence of tributaries. Waahi tapu associated with river valleys include, but are not limited to, urupa (burial grounds), sites used for ceremonial purposes, mahinga mātaitai (food gathering areas), riu waka (landing sites), nohoanga (campsites), work areas and places for harvesting rongoā (medicinal plants).

9. Section: Tangata Whenua connections with the Hokianga-nui-a-Kupe

9.1 Waipuna marae Trustees|Hapu|Whanau Draft Strategic Management Plan (pg. 37 – 41) explains that ngā uri (the descendants) of Kupe have occupied the northern shores of the Hokianga pre-European. The Polynesian explorer Kupe returned to Hawaiiki leaving the last of his people here as a beacon for the next wave – his grandsons Nukutawhiti and Ruanui. Following the ancient sea trails and navigational markers

told by Kupe, they landed safely and thus their progeny remain on the land and hold safe the sacred knowledge of their ancestor(s).

9.2 The harbour has sustained tangata whenua for generations. Their tupuna used traditional management systems to ensure our environment and resources were sustained and that people were kept safe from harm. There are many Tauranga ika and wahi kaimoana that continue to be used by manawhenua.

9.3 Today, the most obvious physical evidence of Te Rarawa's relationship with Hokianga-nui-a-Kupe and the surrounding lands is their marae and oral histories told by ahikaa roa (occupants).

9.4 Evidence of the relationship of tangata whenua to the Harbour also lies in their tribal pepehā, or proverb. Pepehā reinforce the connection between people and the lands and waters that form part of their territory, and to which they have an ancestral relationship. Te Rarawa identifies and defines Hokianga (with all its tributaries) as the defining landmarks of the people.

9.5 There are many hapu and whanau who has connections with Hokianga-nui-a-Kupe, but for the purpose of this CIA, Te Rūnanga o Te Rarawa refers to marae of Te Rarawa who has remained located in the surrounds of the Hokianga shores to this day. Ten marae of Te Rarawa are adversely effected due to the Kaikohe Wastewater Treatment Plant, and other treatment plants (e.g., Rawene, Kohukohu, and Omapere). They, and their pepehā, are cited as –

Ko Ngātokimatawhaorua te waka Ko Tauwhare ko Pukerangatira nga maunga Ko Hokianga te moana Ko Nukutawhiti te whare tūpuna Ko Ruamamao te wharekai Ko Waiparera te marae	Ko Mereana Pai te maunga Ko Te Arohanui te whare Ko Hokianga te moana Ko Te Ihutai te hapū Ko Mangataipa te marae
Ko Maungapōhatu te maunga Ko Te Karae te awa Ko Hokianga te moana Ko Te Ihutai te hapū Ko Pāteoro te marae	Ko Whakapiki te maunga Ko Hokianga-nui-ā-Kupe te moana Ko Ngarunui te whare tūpuna Ko Te Ihutai te hapū Ko Pikipāria te marae
Ko Rangikāwarawara te maunga Ko Hokianga te moana Ko Te Ihutai te hapū Ko Tauteihiihi te marae	Ko Rākautapu te maunga Ko Tapuwae te awa Ko Hokianga te moana Ko Ngāhuia te whare tupuna Ko Ngai Tupoto, ko Ngati Here nga hapū Ko Ngāi Tupoto te marae
Ko Tamatea te iwi Ko Waipapa te awa	Ko Panguru te maunga Ko Whakarapa te awa

Ko Hokianga te moana Ko Ngāti Temaara ko Ngāti Tamatea ngā hapū Ko Motuti te marae	Ko Hokianga te moana Ko Ngāti Manawa te hapū Ko Ngāti Manawa te marae
Ko Panguru te maunga Ko Whakarapa te awa Ko Hokianga te moana Ko Waiāriki, ko Kaitutae, ko Ngāti Manawa nga hapū Ko Waipuna te marae	Ko Te Reinga te maunga Ko Waihou-nui-ā-rua te awa Ko Hokianga-nui-ā-Kupe te moana Ko Ngāti Te Reinga te hapū Ko Waimirirangi te whare

10. Section: Ngā Atua

10.1 At the centre of tangata whenua relationships are ngā atua (the spiritual guardians). These guardians are responsible for all aspects of life, including the health and wellbeing of people. Ngā atua form the framework for the discussion of issues relating to the management of wai (water).

11. Section: Te Rarawa Assessment of Kaikohe WWTP

11.1 The Kaikohe WWTP treats municipal wastewater from Kaikohe Township and sewage and sludge from the septic tanks of domestic sites across the district. The wastewater is treated through a series of ponds and constructed wetlands prior to its discharge into an unnamed tributary of the Wairoro Stream. The discharge ultimately travels from the Wairoro Stream to the Punākitere Stream, to the Taheke River, the Waima River and then into the Hokianga Harbour. The distance from the discharge location to the harbour is approximately 45km.

Kaikohe WWTP detailed process of effluent treatment onsite, Cumber Road, Kaikohe. Image taken from WDC GIS Maps 2021.

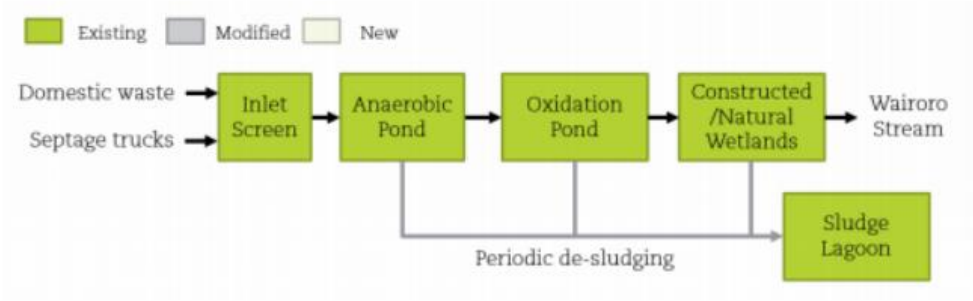
11.2 Water quality of the discharges has recently declined due to a range of performance issues within the WWTP, causing occasional non-compliance with the approved set of conditions. Non-compliances are exacerbated during times of drought and have related to exceedances of total-ammoniacal nitrogen,

nitrogen, phosphorous, and E. coli concentrations of treated wastewater at the Wairoro stream monitoring sites.

11.3 Consents are required pursuant to s15 of the RMA, relating to the discharge of treated wastewater from the treatment plant to a natural stream and wetland system. This is provided for by:

- Regulation 47(3) of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES:F) for the discharge of water (associated with the operation of specified infrastructure) within, or within a 100m setback from, a natural wetland as a restricted discretionary activity; and
- Rule C.6.2.2 of the Proposed Northland Regional Plan (PRP) for the discharge of treated wastewater from a wastewater treatment plant into water and any associated discharge of odour into air resulting from the discharge as a discretionary activity.

11.4 The Kaikohe WWTP is located on Cumber Road, Kaikohe, on a site legally identified as: Lot 2, DP 45233 Blk XV, Omapere SD; Sec 27, SO 40585 Blk IV Punakitere SD; Sec 2, SO 12295 Blk IV Punakitere DS; Sec 30 Blk IV Punākitere SD. The Site is owned and operated by FNDC. The WWTP consists of several biological treatment components, as summarised in the scheme below.



Treatment process at the Kaikohe treatment plant

11.5 In 2019, a submission *History of Sewage Systems in Hokianga* written by Jean McVeagh cited that for over forty years the Hokianga Harbour catchment has been the receiving environment for wastewater discharge from four separate treatment plants; and for decades the local community and tangata whenua (Te Rarawa being one) requested that the practices stopped. Today, the position of Te Rarawa has not changed. Te Rūnanga is also of the view that a 15-year interim resource consent to explore a long-term solution is far too long. Manawhenua and their communities no longer has the patience or the stamina to accept remedies that are irrelevant (refer to Appendix B of this report as supporting evidence).

11.6 Te Rūnanga o Te Rarawa has a baseline or benchmark of no discharge to water. The benchmark is particularly relevant to the discharge of sewage (treated or untreated) to water. Written and verbal submissions (past or present) gives evidence to that. This position comes from years of watching waterways in the takiwa become degraded as a result of uncontrolled discharges of effluent, rubbish, industrial waste, hospital waste, and greywater. Over time, the impacts on waterway health, water quality, and mahinga kai have been significant.

11.7 From this baseline, the Rūnanga can assess discharge to water applications on a case-by-case basis, usually via a Cultural Impact Assessment. The focus of such assessments is the volume and quality of the

effluent, the nature of receiving environment, and available alternatives. Wai (water) cannot be separated from other resources within a catchment. Wai links all taonga. The basis for this holistic view is the whakapapa between all living things, including people. Within this Cultural Impact Assessment, Te Rūnanga o Te Rarawa has assessed the impacts on cultural values as a result activity associated with the Kaikohe Sewage Treatment Plant, a plant that currently discharges treated sewage into the Wairoro Stream which eventuates in the Hokianga catchment. The assessment concluded that:

- The adverse effects of the activity on cultural values are significant, given the nature of the effluent (sewage), the quality of the effluent (considered poor), and the degraded health of the waterway.
- The Status quo (continue existing activity) is inconsistent with our tikanga and is thus outside of the bounds of cultural acceptability. Tangata whenua do not accept human effluent, (treated or untreated), released into our wai as an appropriate outcome, as it conflicts with Māori values of tapu (sacred) and noa (common). It is also seen as culturally offensive and degrading of mauri.
- It is culturally unacceptable to use poor water quality measures upstream of the oxidation pond discharge as a control (i.e., baseline) for downstream measures, or as evidence that the adverse effects of additional discharge will be minor.
- Evidence suggests that for decades the Hokianga Harbour is most affected by the cumulative effects of water contamination by non-point source contamination due to run-off from adjacent farms and point-source contamination from the Kaikohe, Rawene, Omapere and Kohukohu sewage treatment plants. Council discharge practices and methodologies, combined with rising sea temperatures, has meant frequent rahui (ban) to swim, fish or gather shellfish due to e.coli contamination or algal bloom toxins that exceed safe limits for recreation or domestic use. Not being able to provide for themselves or exercise manaakitanga (hospitality) to manuhiri is embarrassing for whanau, hapu, and their marae.

11.8 The Kaikohe WWTP application is not "forward thinking enough", in terms of best practice, new technologies, water quality, stream health, and catchment base management. Further, the Rūnanga notes that:

- The activity is inconsistent with the Proposed Te Mana o Te Wai reforms, which aim to manage the use of freshwater in a manner which safeguards the life supporting capacity of the resource; and
- With the Northland Regional Policy Statement objectives and policies, which aim to maintain water quality at levels which provide for the sustainable management of fish and plant life, and to maintain and enhance freshwater habitats and natural species diversity.

11.9 The tangata whenua approach is reflected in the practice of Integrated Catchment Management (ICM). ICM encompasses all the different approaches to the management of natural resources within the catchment and watershed boundaries. It is reflected in the Resource Management Act 1991, which requires Councils achieve integrated management of natural and physical resources.

11.10 The restoration and protection of the Hokianga Harbour catchment is regarded as a long-term project that will require intense participation, a broad range of skills, and ongoing action – all will rely on strong relationships, ongoing support and working together with a shared vision.

12. Section: Te Rūnanga o Te Rarawa (TROTR) Position

12.1 While there appears to be a genuine approach by FNDC to improve the current discharge conditions and reduce its physical impact on the wai catchment, Te Rūnanga o Te Rarawa cannot support FNDC

application for the discharge of treated wastewater into the Wairoro Stream. For reasons explained, **the ongoing discharge of human effluent into the wai, is unacceptable.** It is apparent that the discharge of treated wastewater in the Kaikohe water catchment has not been managed in a way that provides for the qualities that make it significant to tangata whenua.

12.2 The activities associated with the Kaikohe WWTP are considered to have significant adverse effects on cultural values; but there are options to stop, remedy, or mitigate such effects, through addressing issues such as the quality of the effluent and the ability of the receiving environment to absorb or cope with waste until such time a long-term sustainable solution is accomplished.

12.3 Te Rarawa's position are provided to assist FNDC to address cultural concerns, and to provide a **basis** for relevant parties to achieve a 'best fit' between cultural values and our receiving environment(s).

For the Council:

Position 1: Discharge to Land/Avoid Discharge of Contaminants to Wai.

The most culturally appropriate option for managing the Kaikohe Wastewater Treatment Plant discharge is to stop discharging treated wastewater to our Wai. Of recent and more importantly, Councils throughout Aotearoa have been testing wastewater discharge for evidence of Covid19 and Delta Variant within their district. To mitigate spread of contaminants and disease cannot be achieved through using water as a medium for dilution and disposal. Consequently, discharge of pollution to wai should not be used as a receiving environment, especially sewage. However, if the Council chooses to continue discharging wastewater into wai:

- A condition to this consent (and future resource consents requiring sewage discharge to wai) must include: *"discharge of wastewater at [the point of discharge] will be tested frequently for Covid19, and if evident, discharge is to cease immediately".*

In the short term, passing or filtering waste through land where the carrying capacity of the land is not compromised, can restore the mauri or balance of that water. Further, TROTR is of the view that the repurpose of 'sewage sludge and green waste' is the medium to long-term fit-for-purpose solution to safely dispose sewage waste *(refer to Appendix A, Part 4 of this report).* Whilst the impacts of climate change just add another layer of distress to our local communities, the greatest threat to our rural communities, however, is the pollution and degradation of their natural resources.

Position 2: Improve the Quality of the Effluent.

The quality of the effluent must be improved. Poor quality effluent is clearly having significant adverse effects on the mauri of the Wairoro stream and the surrounding water catchment, thus posing risk to the Hokianga Harbour and the relationship of Te Rarawa to it. A focus of the site with FNDC and mana whenua representatives is communicating effluent quality data into plain language information, to enable informed consultation. Using a measure of "is the quality of the effluent such that stock can drink it?" is one example. Ideally, the Rūnanga believes that, given current technology, sewage should be treated to a standard similar to drinking water, however, for the purposes of this CIA, the Rūnanga recommends that the effluent is treated to a state the quality is consistent with contact recreation (as a measure of quality, not of activities that tangata whenua believe should occur).

Position 3: Improve the Receiving Environment.

The Rūnanga does not consider 'wai' as a suitable receiving environment given the nature of the effluent (sewage), the quality of the effluent (considered poor), the degraded health of the waterway, and the risk of disease being transmitted through domestic use. If FNDC chooses to continue discharge of treated sewage to the Wairoro stream, the only means of addressing cultural issues is to improve the quality of effluent and improve the receiving environment. Improvement of the Wairoro stream as a receiving environment can only occur through:

- Wetland/riparian planting of appropriate native species from the discharge outfall to the confluence of the Wairoro stream. TROTR supports a catchment group, consisting of hapu abutting Wairoro stream, to be involved in riparian planting, monitoring and any other controls necessary determined by them. *A condition to this consent must include funding made available for local riparian planting.*
- Improving the health of the waterway by addressing other discharges to the waterway, including stormwater from the Kaikohe township, and non-point source discharges from agricultural and other land use in the upper catchment. It is the responsibility of FNDC to regulate these activities and address water quality issues throughout the catchment.

Further, if FNDC decides to continue to use Wairoro Stream as a receiving environment for wastewater discharge, the Assessment of Effects (AEE) in Resource Consent Application must be expanded and updated to provide better information upon which to base this decision. We recommend local hapu who are directly associated to Wairoro Stream are included in the planning and decision making *(refer Appendix A, Part 3 of this report for reasons).*

Position 4: Provide more Information.

Cultural issues can also be addressed through the inclusion of more information in the Resource Consent application. In particular, the Assessment of Environmental Effects (AEE) should be expanded to include wider range of issues *(refer Appendix A, Part 1 of this report for reasons and additional recommendations).* Specific information needs identified by Te Rūnanga o Te Rarawa include:

- A more current ecological survey for the Wairoro Stream and the Hokianga Harbour, before lodgement of consent, to provide more up to date information and thus a better assessment of effects.
- Hydrological information, to assess potential risk to groundwater and surface water courses.
- Information pertaining to cumulative effects of discharge on the Hokianga Harbour (e.g., agricultural, stormwater, sewage).
- Assessment of cultural effects, as per this Cultural Impact Assessment.

The assessment of alternatives also requires additional information to ensure that alternatives to the status quo can be fully considered. Specifically:

- Aside from discharge to land, the benefits of transforming sewage sludge and green waste into biofuel/renewable energy must be fully recognised, discussed, and researched as part of the assessment of alternatives. For example, improved water quality discharge in the Hokianga Harbour catchment has not been recognised as a benefit.

Position 5: Recognise and Provide for Future growth in Kaikohe and its surrounding Communities.

The consent application should explicitly recognise and provide for future residential, commercial, and industrial growth in Kaikohe within and beyond the consent duration. The resource consent application must demonstrate long term planning.

Position 6: High Standards.

The highest environmental standards should be applied to any consent application involving discharge of contaminants (e.g., standards of treatment of sewage). Further, the Rūnanga consistently encourage developers and local authorities to be innovative, creative, and forward thinking.

The Rūnanga encourages FNDC to set an example of best practice, while achieving the best possible outcomes socially, environmentally, and culturally. For TROTR the focus of Three Waters management must look beyond maintaining what is there but enhancing our waterways to restore the values that were once there. TROTR seeks to restore the waterways of the takiwa to a state where they can once again sustain customary uses, from ceremonial use of the purest waters, through to ecosystem support for mahinga kai species.

Appendix A

(Supporting Information):TROTR Cultural Impact Assessment recommendations in response to the Kaitaia Wastewater Treatment Plant Resource Consent (refer FNDC website link: https://www.fndc.govt.nz/Our-Services/Wastewater-and-stormwater/Wastewater-treatment-plants/Kaitaia-Wastewater-Treatment-Plant/Kait%C4%81ia-WWTP-resource-consent-renewal for a full copy) . The following policies are applicable to the Kaikohe WWTP resource consent.

Part 1: Tangata Whenua and Council Working Together

a. To recognise the unique and important role tangata whenua play as kaitiaki (guardians) of wai (water) and associated catchments through a mutual commitment to improve the Council-tangata whenua relationship based on regular and open communication and dialogue;

b. To investigate and create opportunities for tangata whenua to participate in the management of waterways including:
   o Greater involvement in policy and planning processes;
   o Holding annual workshops between tangata whenua and Council staff to.
   - Increase tangata whenua understanding of the nature of all proposed river work(s).
   - Increase Council understanding and awareness of tangata whenua worldview and approach to the management of waterways; and
   - Identify tangata whenua values associated with sensitive areas at an early stage.

c. To develop new protocols for tangata whenua and contractors to meet as a matter of course in relation to work being undertaken in sensitive areas; this recommendation recognises the importance of educating people working in the field of cultural values associated with waterways;

d. To develop a clear process for tangata whenua and Council staff to undertake annual site visits to look at work proposed in sensitive areas such as the lower reaches of waterways;

e. To develop new protocols between tangata whenua and the Council for dealing with waahi tapu (sacred sites) if they are uncovered because of river works;

f. To develop new protocols where Council and tangata whenua work together to investigate the use of precincts as triggers for greater tangata whenua involvement in the protection of waahi tapu (sacred sites) and mahinga kai (food gathering places):
   o in relation to river works; tangata whenua may need time to gather information and have a site visit before work commences;

g. To ensure active protection of significant sites associated with waterways.
   NB: There is still works to be done to ensure that significant sites recorded in the Far North District Plan are accurate and that there are buffers in place to protect areas from inappropriate activities.

h. To develop new protocols where tangata whenua shares cultural health monitoring information to contribute to the management of waterways;

i. To create opportunities for tangata whenua participation in fish recoveries for drains and streams in which mechanical clearance is required and in which tangata whenua have identified a particular

interest, such as giant kokopū habitat, tuna (eel), kēwai (freshwater crayfish), kanae (mullet), kakahi (freshwater mussel) and inanga (whitebait);

j. To develop a clear process for contacting tangata whenua and working together in emergency situations.

Part 2: Towards integrated catchment management

For the Council:

a. To consider practical ways FNDC can meet its legal obligations and move towards a more integrated approach for managing water. An ICM approach recognises the inter-related nature of water ecosystems and the kaitiaki (guardian) role of tangata whenua in the rohe.

b. To focus on the relationship between activities carried out in water catchments and how an integrated management approach can improve the protection of tangata whenua values associated with water catchments.

NB: A good example of the application of the kaitiaki role is the development of a Cultural Health Index (CHI) for the Awanui River catchment and the establishment of monitoring sites. A programme of this nature will give opportunities for tangata whenua to carry out research on river catchments, using mātauranga Māori blended with scientific methodology. In addition, the programme will help tangata whenua to monitor changes in the health of catchments in their rohe (District).

Key initiatives should include:

a. To clearly link the resource consent objectives with an approach in keeping with the Resource Management Act 1991, National Policy Statement(s), Te Mana o Te Wai and Climate Change reforms, Te Rarawa Claims Settlement Act 2015, the Long-term Regional and District Plan(s);

b. For council managers from relevant departments to meet with tangata whenua to discuss practical steps towards managing water using a holistic approach – one that recognises iwi customs and traditions associated with wai;

c. To develop an action plan as an outcome of these discussions identifying tangata whenua involvement in the management of waterways. For example, Council and tangata whenua could work together to seek funding to extend the cultural health monitoring work undertaken in the Awanui River Catchment.

d. To identify ways to improve the protection of waahi tapu, rongoā and mahinga kai within the Awanui River catchment surrounding.

- To ensure that actions developed through the above process are linked with other related research and projects, such as the Awanui River Catchment Programme, Cultural Health Indicator research, and a tangata whenua management planning process.

e. To identify opportunities for enhancing the river environment through the Awanui Flood Works scheme. This approach is one way to recognise the importance of enhancing the mauri (life force) and wairua (spirit) of water and to give something back to the environment. For example, the Council could prioritise the use of indigenous plants in riparian restoration, and work to enhance and extend habitats for indigenous species, such as birds, fish, and invertebrates. This will require a financial commitment from Council to support additional areas for restoration.

f. To commit funding to extend pest control work beyond classified sections of rivers.

Part 3: Kaitaia Wastewater Treatment Resource Consent

Although the resource consent "Assessment of Environmental Effects (AEE)" identifies many statutory and non-statutory plans which emphasise the importance of integrated catchment management, the link between these documents and the Council's approach to river management and discharge of wastewater is unclear. The resource consent objectives reflect a 1980's ideology which is no longer relevant. The discharge of effluent, whether treated or not, directly impacts on the health and wellbeing of the catchment.

Dilution of pollution is not the solution and is unacceptable to tangata whenua. Tangata whenua has been consistent in advocating discharge to land, allowing Papatūānuku, through wetlands and riparian areas, the opportunity to filter and clean any impurities, to ensure that water is not contaminated. However, if discharge to land exceeds the carrying capacity of the land, then both the land and the water will be contaminated. Freshwater management must consider the relationship between the types of land use in the catchment (i.e., what land use activities are water abstractions supporting), and water quality.

Point source discharges, which Te Rūnanga o Te Rarawa opposes, are one source of impact on water quality. However, water quality is also a reflection of the way that flow, and water abstractions, are managed.

For the Council:

a. In the next 3 years, adopt two yearly reviews of the resource consent conditions in consultation with Te Rūnanga o Te Rarawa, to assess how well the conditions are operating:

- To investigate the feasibility and transition of human effluent discharge from water to land using a Cultural Health Index score: site status, mahinga kai (customary food gathering) status, and cultural water quality.
- To investigate options for upgrades and adaptation to the Treatment Plant in preparation for climate change reforms and associated climate hazards such as frequent inundated floods, drought, and low water flows, rising water temperature and sea levels, salination of groundwater, and or tsunami.
- To provide Te Rūnanga o Te Rarawa with monitoring information – both in terms of compliance, water quality monitoring, the monitoring of the flows at the Awanui river mouth and key sites further upstream, and sediment samples at Lake Tangonge for nitrogen and phosphorous overload, or biochemical oxygen demand.
- To identify areas where tangata whenua will need to be present to monitor all site works or river works.

- Focus on decarbonisation investments in parallel with adaptation investments, particularly in the transition to renewable energy.

Part 4: Freshwater and Climate Change Reforms

Societies have been adapting to the changing climate, but the pace and scale of adaptation will likely need to increase significantly. Key adaptation measures include protecting people and assets, building resilience, reducing exposure, and ensuring that appropriate financing and insurance are in place. Implementing adaptation measures could be challenging for many reasons. The economics of adaptation could worsen in some geographies over time, for example, those exposed to rising sea levels or water temperatures rising. Adaptation may face technical or other limits. In other instances, there could be hard trade-offs that need to be assessed, including who and what to protect and who and what to relocate.

While adaptation is now urgent and there are many adaptation opportunities, climate science shows us that the risk from further warming can only be stopped by achieving zero net greenhouse gas emissions. While all societies are affected by climate change, the poorest societies could be more exposed, as they often have climates closer to dangerous physical thresholds. They also rely more on outdoor work and natural capital and have lesser financial means to adapt quickly.

Understanding which part of tangata whenua operations are most at threat from the impacts of increased temperature, bushfire, flood, storm damage or climate related water restrictions will help societies plan their next move. It might be strengthening the resilience of existing assets, diversifying our supply chains to spread risk, or future proofing sites by investing in technology or other adaptation measures.

As well as examining the impacts of climate and risk of water shortage and assessing where our local businesses is most vulnerable, Te Rūnanga o Te Rarawa wants to identify opportunities to increase resilience, reduce green gas emissions and cut costs to landowners and ratepayers. Whether its employing technology to slash water use, moving to renewable energy sources or even generating bioenergy from organic waste can help explore all possibilities.

For many local businesses using or reliant upon water resources, the biggest impact of climate change is on water supply. Reduced water allocation often means reduced production or output. Understanding the 'impact' a changing climate poses to the availability of water resources, can go a long way in improving overall enterprise viability. Assessing water risks and identifying alternative sources, are options to improve water efficiency and increase recycling or reuse of process water to ensure 'investments' is supported by adequate water supply for all users (including our natural resources).

For the Council:

a. Hold annual hui with Te Rūnanga o Te Rarawa, focusing on any annual river works programme to discuss specific impacts on tangata whenua values from proposed river works.

NB: Key considerations include the potential adverse effects on waahi tapu and mahinga kai values arising from:

- o *the construction of structure(s) in river channels;*
- o *Gravel extraction;*
- o *Riverbed disturbance;*
- o *Water diversion;*

- o *Open drain mechanical clearance; and*
- o *All work associated with the river mouth and areas immediately upstream of the river mouth.*

b. Review the use of flap gates and consider alternative approaches to enable upstream migration of indigenous fish from the sea to freshwater stream(s);

c. Avoid the use of chemical sprays within fifty metres of a waterway.

d. Avoid riverbed disturbance in the wetted channel and consult Te Rūnanga o Te Rarawa where this is unavoidable, to ensure adverse effects on tangata whenua cultural values are mitigated or remedied;

e. Place clear and enforceable controls on river works to ensure that sedimentation of water is kept to a minimum and that mauri (life force) and wairua (spirit) of indigenous flora and fauna is maintained;

f. Rehabilitate river margins with indigenous species in preference to introduced species as a matter of course.

In working towards Climate Change reforms and zero green gas emissions:

a. Within the next 5 years, hold annual hui with tangata whenua to focus on renewable energy, biofuel, and waste conversion (trash and sewage) options, instead of fossil fuels with massive carbon sequestration to meet the liquid fuel demands our local businesses will still have. Things like long-haul aviation, shipping and cartage are difficult without a high-energy-density fuel, and the good news is that our food waste, sewage, and agricultural by-products are more than enough to produce diesel and gasoline type liquids for these purposes. We should accept that deprivation and efficiency, while useful in lowering total energy need, does not work as a net-zero carbon strategy and that it will distract 'capital' from the replacement technologies needed.

b. Understanding which part of community assets and operations are most at threat from the impacts of increased temperature, bushfire, flood, storm damage or climate related water restriction can help plan our next move. It might be strengthening the resilience of existing assets, diversifying our supply chains to spread risk or future proofing sites by investing in technology or other adaptation measures.

b. The old way of doing things is embedded in legislation and thinking everywhere: building codes that are not friendly to renewable or solar energy, electrical codes that artificially increase the cost of solar and vehicle electrification, net metering regulations, road/gasoline taxes, and landowner obligations. We will solve climate change if we do not let the bureaucratic crud and mental laziness of 100 years of writing regulations for a fossil fuel-based economy get in the way of a verdant decarbonized future for future generations. For most people, this last point is where people can make the biggest difference on climate change. A few driven tech nerds will make the electric cars, air conditioners and electric furnaces, solar power plants, and bioreactors of our future. For the rest of us, the best place to engage is by making sure our local regulations are compatible with solving climate change. Tangata whenua cannot deliver the change required on schedule if we are waiting for Council to issue us the permits.

For the Council:

By the end of year 2026:

a. Decommission Kaitaia Waste-Water Treatment Plant and sewage ponds at Bonnetts Road as contamination of our water or land is the greatest threat to Te Hiku district sustainability.

b. In consultation with tangata whenua, a District Adaptation Plan is assessed and opportunities to increase community resilience, reduce green gas emissions and cut costs to land/water rates and utility fees has been identified.

c. To investigate, with the assistance of scientists and engineers, a capital investment and viability in recycling sewage sludge and green waste (whether through steam drying the sludge, gasification of dry solids and methanol synthesis) into methanol biofuel, a viable alternative fuel and renewable energy. Methanol (which can be used to replace diesel fuel yet reduce tailpipe emissions) and its synthesis by-products can be sold to the consumer market which will generate revenue to repay the costs towards the district 'adaptation' plan, subsequently reducing costs to the ratepayer/taxpayer overtime, and still sustain local employment and economic opportunities in the district.

Appendix B

Refer to letter attached – Motuti marae, Desire'e Andrews (Chairperson), September 2021.

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