

From: Katherine Forward <katherine.forward@duncancotterill.com>
Sent: Monday, 22 February 2021 2:44 pm
To: Leif Pigott
Cc: Jessica Ottowa
Subject: NRSBU Biosolids resource consent renewal application - RM200638, RM200639, RM200640 and RM200641
Attachments: NRSBU Moturoa Biosolids CIA 19_2_21 (_12665650_1).PDF

Dear Leif,

Please find **attached** a collaborative Cultural Impact Assessment (CIA) for the above application(s) prepared by the following iwi:

- Ngāti Koata Trust
- Te Rūnanga o Ngāti Rārua
- Te Ātiawa o te Waka-a-Māui Trust,
- Ngāti Tama ki te Waipounamu Trust,
- Te Rūnanga o Ngāti Kuia,
- Ngāti Apa ki te Rā Tō.

For the avoidance of doubt, while the CIA has been prepared by Aneika Young (engaged as iwi liaison by NRSBU on this project) this is strictly an iwi document and NRSBU does not accept that all recommendations proposed fall within NRSBU's remit or are appropriate when considered alongside the AEE/ technical reports. That said, NRSBU considers that the CIA is a helpful resource to generate ongoing engagement with iwi and a hui to discuss the recommendations will be scheduled in due course.

When considering the iwi recommendations alongside the volunteered suite of consent conditions, it is important to acknowledge that many of the recommendations are already captured within the conditions (or the conditions provide a pathway for the exchange of information to occur). In particular, we refer to the annual hui (condition 7), annual report (condition 8), 6-yearly monitoring and technology review report (condition 9), biosolids management plan (condition 11), exclusion zones and buffer areas (conditions 23 and 24) along with robust monitoring requirements for odour, groundwater, soil and coastal resources.

Please let us know if we can be of further assistance.

Kind regards

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Moturoa / Rabbit Island Biosolid Application Resource Consent Cultural Impact Assessment



FEBRUARY 2021

Cultural Impact Assessment Report Prepared by Aneika Young at Te Aranga Environmental Consultancy for Nelson Regional Business Unit.

‘Anei ngā mea i whakataukitea ai e
ngā tūpuna, ko te kaha, ko te uaua, ko
te pakari’

*Here are the things valued by the
ancestors; it is the strength, the vigor, and
the sturdiness’¹ (Grove & Mead, 2001).*

¹ This whakatauki refers to the importance of ‘Ngā taonga tuku ihu’ the taonga gifted and passed down from the tūpuna, such as the natural resources and wāhi tapu, which are to be protected and safe guarded as taonga.

NGĀ MIHIMIHI - ACKNOWLEDGEMENTS

This CIA represents a collaboration between the waka of Kurahaupo, Tainui and Tokomaru and includes the participation of the following **Te Tauihu Iwi**:

- Ngāti Koata Trust,
- Te Rūnanga o Ngāti Rārua,
- Te Ātiawa o te Waka-a-Māui Trust,
- Ngāti Tama ki te Waipounamu Trust,
- Te Rūnanga o Ngāti Kuia,
- Ngāti Apa ki te Rā Tō.

The Te Tau Ihu Iwi Working Party included:

- Alice Woodward (Ngāti Koata, Environmental Officer),
- Daren Horne (Te Ātiawa, Kaitiaki Taiao),
- Kura Stafford (Ngāti Tama He Pou Taiao) – Please note Kura provided additional peer review services to support the writer.
- Julia Eason (Ngāti Kuia, Taiao Planner),
- Rowena Cudby (Ngāti Rārua, Taiao Pouwhakahaere),
- Sylvie Herd (Te Ātiawa, Kaitiaki Taiao).

Eight Iwi of Te Tauihu were invited to engage in the NRSBU resource consent renewal project however, Ngāti Rangitane and Ngāti Toa Rangatira have not participated in zoom meetings and the site visit. Please note that the views expressed in this CIA report do not necessarily reflect the views of those Iwi that did not participate in this report. Council has statutory obligations with each Iwi as per the Settlement Act 2014. The two Iwi will provide their own feedback to this project as required.

It should be noted that Iwi are autonomous and have their own separate legal entities within Te Tauihu, each representing whānau members and social, cultural, environmental and economic interests. However, Iwi have a shared history with Te Tauihu. It is important that NRSBU and Council acknowledge and recognise the relationships, customary rights and interests that exist amongst Iwi/Māori entities in the rohe. It is appreciated that the Applicant has engaged with the Iwi, however, a 'one size fits all' approach for engagement and consultation may not be appropriate as Iwi entities will have different priorities depending on the issue and location of

activities. It is important for the Applicant to be aware of this dynamic from the outset. In this case, five Iwi entities have contributed to this CIA report. Where there are specific Iwi comments about the proposal, this will be noted and attributed to those Iwi. We thank the Iwi Working Party for their time to contribute to this project.

NRSBU Project Team and Technical Experts:

The iwi would also like to acknowledge the NRSBU project team and TDC staff and the effort to start to work with Te Tauihu iwi in this project. In particular we would like to acknowledge the following people:

- Te Waari Carkeek (TDC Kaihautu)
- Frank Hippolite (NRSBU Board Member)
- Kit Mailing (NRSBU Board Chair and TDC)
- Nathan Clarke (NRSBU General Manager)
- Brad Nixon (NRSBU Operations Manager)

Te Tauihu iwi would also like to acknowledge the Technical team of experts and the wider parties who were involved in the consent process, technical reporting and engagement support. Some of those people supported the consent application and provided information to Te Tauihu iwi which was useful and supported a collaborative approach.

- Katherine Forward (Duncan and Cotterill - Consents Manager)
- Jessica Ottowa (Duncan and Cotterill - Consents Manager Support)
- Chris Purchas (Tonkin Taylor – Biosolids Alternatives Assessment)
- Jamie Ataria (Cawthron Institute – Eco toxicologist)
- Daniel Murrey (Tonkin and Taylor)
- Don Morrisey (Cawthron Institute – Marine Ecologist).

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1.0 KUPU WHAKATAKI – INTRODUCTION

1.1 Executive Summary

NRSBU operates the Bells Island Wastewater Treat Plant (WWTP) and treats wastewater from Tahunanui, Stoke, Richmond, Brightwater, Wakefield and Māpua. There are currently multiple consents that support the continual operation of WWTP and associated discharges into the Waimeha Inlet, to land via irrigation of biosolids, and to air through the odour which have all been renewed for another 20 years. NRSBU currently hold three resource consents for the following: (1) Discharge permit for Biosolids Application Facility to discharge treated waste to land (forestry blocks); (2) Land use consent authorising the use of Moturoa for the discharge of biosolids and associated building and structures and (3) Coastal permit authorizing the construction of an underground pipeline from Bells Island to Moturoa. The final AEE was lodged in August 2020.

The biosolids discharge to land consent is due to expire on the 8th of November 2020 and therefore NRSBU are looking to renew the consent for a further 35 years. The application will be supported by an Assessment of Environmental Effects (AEE) and this CIA report. This CIA report provides an overview of the Iwi cultural context for Moturoa, issues and recommendations. The following Iwi participated in this CIA report:

- Te Ātiawa Iwi ki te Tau Ihu Trust,
- Te Rūnanga o Ngāti Rārua,
- Ngāti Tama ki Te Waipounamu Trust,
- Ngāti Koata Trust,
- Ngāti Kuia Trust,
- Ngāti Apa ki te Rā Tō².

Iwi aim to advance Iwi interests by working collaboratively with Council, Crown, Applicants to influence thinking and decisions to protect, restore and enhance the natural environment and deliver on Iwi outcomes. Iwi have participated in various RMA/LGA processes with different entities for Moturoa: NRSBU and Tasman Forests resource consents, TDC Moturoa/Rabbit Island Reserve Management Plan,

² Please note that each Iwi is autonomous and has their own histories and cultural narratives for Te Taihū. There are some commonly shared tikanga Māori values and interests, however, there are also different views between the Iwi and any matters specific to Iwi will be clearly identified and attributed to each Iwi in this report.

and the PF Olsen CIA report 2015. A key recommendation in all those processes and for this proposal is to widen the scope to retire and protect cultural sites of settlement/kāinga from any activities. Te Ātiawa consider that the recommendations in those processes to retire significant cultural areas has been ignored. It would have been helpful if the engagement for this proposal included all the entities that use and manage Moturoa (Te Ātiawa kaitiaki., 2020, *Personal communication*).

An integrated and coordinated approach to the use and management of Moturoa is preferred to achieve positive restorative beneficial environmental and cultural outcomes (Te Ātiawa kaitiaki., 2020, *Personal communication*). This CIA report will also refer to the issues and recommendations outlined in the RMA/LGA processes noted above. Moturoa is culturally significant to all Iwi and has extensive archaeological evidence and a rich Māori history with sites of settlement/kāinga, pa and wāhi tapu. It is a cultural precinct and wāhi tapu because of Māori early settlement, pākanga – battles, urupā – burials, māhinga kai – food gathering sites and the taonga that are present there.

1.2 Site description

Moturoa / Rabbit Island is located in the Waimeha Inlet between Nelson and Te Mamaku/Ruby Bay in the Tasman District, approximately 11km by road west of Richmond off State Highway 60. The coastal settlements of Māpua sits north of Moturoa, Appleby to the south and Richmond to the east. The island also sits on the edge of Te Tai o Aorere the Tasman Bay and at the mouth of the Waimeha River and plains. Moturoa is a coastal marine island that is characterised by coastal dune ecosystems. Moturoa is administered by Tasman District Council and use the land for *Pinus radiata* forestry and Biosolid Application Facility (BAF). Nelson Marlborough Waste contract to NRSBU for the BAF operations, while the forestry is managed by PF Olsen. Recreational users are active on Moturoa and use the area for swimming, horse riding, cycleways, water sports picnicking and walking.



Figure 1: Moturoa/Rabbit Island³

1.3 Iwi Engagement

NRSBU engaged Aneika Young from Te Aranga Environmental Consultancy to facilitate engagement with the 8 iwi of Te Tau Ihu o te Waka a Māui as Treaty partners with statutory acknowledgements in the rohe. The eight Iwi are:

- Te Ātiawa Iwi ki te Tau Ihu Trust,
- Te Rūnanga o Ngāti Rārua,
- Ngāti Tama ki Te Waipounamu Trust,
- Ngāti Koata Trust,
- Ngāti Kuia Trust,
- Ngāti Apa ki te Rā Tō,
- Rangitane and
- Ngāti Toa Rangatira.

Not all Iwi participated in the engagement and consultation process due to priority workstreams and capacity issues. Iwi will have the opportunity to also participate in

³ Map retrieved from Top of the South Maps website: <https://www.topofthesouthmaps.co.nz/app/>

the formal resource consent process if they so wish. The following Iwi participated in the engagement process and contributed to the preparation of this CIA report:

- Te Ātiawa Iwi ki te Tau Ihu Trust,
- Te Rūnanga o Ngāti Rārua,
- Ngāti Tama ki Te Waipounamu Trust,
- Ngāti Koata Trust and
- Te Runanga o Ngāti Kuia Trust.

The following section outlines the engagement process with iwi:

1. An initial email was sent by the consent manager on the 7th May 2020 to inform all eight iwi on the proposal, information, timeframes; to outline who is NRSBU and what is their function. The following questions were asked to iwi as part of the engagement process:
 - What is your role/organisation?
 - How would you like the NRSBU to engage with your organisation moving forward - email or phone?
 - Do you have a key person from your organisation that you can appoint for future correspondence and communications?
 - Are you interested in preparing a CIA? and Are you interested in a collaborative iwi response to this project such as a collective iwi CIA?
2. An agenda for the first iwi hui was sent and an engagement strategy for iwi.
3. First Zoom Hui held with Iwi reps on 4th June 2020. Purpose: initial meet and greet of iwi with NRSBU Project Team. NRSBU provided an update on the resource consent process, and update on the resource consent status and discussion around how iwi would like to be engaged through this process.
4. An email was sent by the cultural consultant on the 14th of June to iwi reps to confirm how they want to participate in the process;
5. Second Zoom hui with Iwi on 18th August 2020. Purpose: confirm the CIA approach, Timeframes, remuneration and if further workshops required.
6. Iwi site visit to the Biosolid Application Facility on Moturoa on the 18th of September 2020. The following iwi members attended the site visit: Rowena Cudby from Ngāti Rārua, Daren Horne from Te Ātiawa, Kura Stafford from Ngāti Tama. The Purpose: to view the operation of the plant, to hear information by NRSBU operations team to visit areas in the forest blocks where the machine is used to disperse biosolids, and to see some of the archaeological sites.
7. An online workshop was held on the 14th of October 2020 via Zoom. The purpose of the workshop was to enable an opportunity for the iwi to be informed around Biosolids with a particular lens on the cultural implications. Jamie Ataria an Māori Eco-toxicologist and consultant provided high level

information around Te Ao Māori in relation to the biosolid process, and discussed some scenarios to help inform iwi members. Chris Purchas from Tonkin and Taylor also informed iwi of scenarios and provided information on the alternatives to biosolid management.



Figure 2: Biosolid Application Facility – Moturoa



Figure 3: Biosolid Application Area



Figure 4: Biosolid Exclusion Zone ⁴

⁴⁴ Photo's taken by Kura Stafford.
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Cultural Impact Assessment
Te Aranga Environmental Consultancy

2.0 NGĀ WHĀINGA – CULTURAL IMPACT ASSESSMENT OBJECTIVES

2.1 Purpose

The purpose of this Cultural Impact Assessment report is to inform the NRSBU of the Iwi cultural context for Moturoa and Iwi values to inform the resource consent renewal application to discharge Biosolids on Forestry lands at Moturoa.

This CIA will assist the consenting authority to assess the resource consent application proposed against the relevant RMA provisions and in particular Iwi values as they relate to Moturoa and the associated areas.

2.2 Objectives of the CIA:

- Outline the cultural context for Moturoa.
- Identify Iwi cultural values, interests and relationship with the environment.
- Outline the resource consent proposal.
- Identify the cultural impacts associated with the proposed activity and Iwi values.
- Provide recommendations to avoid, remedy or mitigate any adverse cultural effects which would develop into conditions of consent.

3.0 NGĀ KAUNEKE - METHODOLOGY

The CIA is based on a consultative process using a Kaupapa Māori research⁵ approach that is appropriate for Iwi engagement to give effect to Te Tiriti o Waitangi and Iwi outcomes to highlight Te Ao Māori, tikanga Māori, Mātauranga Māori, cultural values, associations, interests and relationships to Te Taiao, the natural world.

The following methods have been used to prepare this CIA report:

- review the application and the assessment of environmental effects and supporting technical reports;
- literature review to document the relationship of Iwi with Moturoa;
- Assess RMA s6(e), 7(a) and 8 matters;
- Identify and outline appropriate legislation and planning frameworks;
- Discussions with Iwi working party and NRSBU management;
- Site Visit to Moturoa and NRSBU Biosolid facility;
- Access New Zealand Archaeological Association's (NZAA) ArchSite for archaeological site assessment and maps;
- Identify the effects of the proposal on Iwi and their values;
- Document issues and recommendations;
- Assess whether the effects can be avoided, remedied or mitigated;
- Report back to Iwi - circulate the draft CIA report to Iwi working party for review and feedback; Update and finalise CIA report;
- Present CIA report to NRSBU applicant and Iwi to discuss recommendations

⁵ Māhina-a-Rangi Baker (2009) A Methodological Approach to Māori focussed research
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Cultural Impact Assessment
Te Aranga Environmental Consultancy

4.0 PLANNING FRAMEWORK

4.1 Legislative context

In terms of planning and consenting the following legislation provides the framework for decision-making over natural resources and taonga. Te Tiriti o Waitangi/Treaty of Waitangi the founding document of Aotearoa was signed by tūpuna in Te Tau Ihu/Te Taihū after 1840. The Māori text of Te Tiriti has a different emphasis and understanding to the English version and sought to ensure Māori rangatiratanga for wāhi tapu, sites of settlement/kāinga and ngā taonga tuku iho. The relationship of Iwi to the natural world is grounded in tikanga Māori and mātauranga Māori as reflected in Te Tiriti o Waitangi. Te Tiriti o Waitangi also lays out the guidelines over protection of ‘taonga’ pertaining to Māori which in this context includes Te Tau Ihu natural resources. The Treaty therefore sets the framework for a ‘Treaty Partnership’ with both Māori and the Crown to govern Aotearoa as was understood at the signing in 1840 and to recognise tikanga Māori values such as kaitiakitanga as well as the principles of the Treaty of Waitangi (which include partnership, rangatiratanga, active protection of land, wāhi tapu, environment and taonga). Council must ‘take into account’ these values and principles in assessment of activities that may impact on Iwi Māori in their respective regions. In addition to Te Tiriti o Waitangi/Treaty of Waitangi Local Government has legal obligations under the following Acts:

- Resource Management Act (1991),
- Local Government Act (2002),
- Heritage New Zealand Pouhere Taonga Act (2014),
- Conservation Act (2004) and;
- Ngāti Koata, Ngāti Rārua, Ngāti Tama ki Te Tau Ihu, and Te Ātiawa o Te Waka-a-Māui Claims Settlement Act (2014)

Legislative framework	Sections	Requirements
Resource Management Act (1991)	6, 7	That local authorities recognise and provide for, as a matter of national importance, Māori culture, traditions, customary activities, protection of heritage sites and have regard to kaitiakitanga ⁶ .

⁶ Iwi acknowledge kaitiakitanga as on-going involvement in environmental decision-making over natural environment and to exercise guardianship of the natural environment in accordance with tikanga Māori. Iwi have a duty and obligation to tūpuna (ancestors), current and future generations to manage natural resources, places of cultural significance and other taonga (collectively ngā taonga tuku iho - the treasures passed down) in their rohe. Kaitiakitanga is carried out through the use of tikanga (customs), kawa (protocol) and mātauranga Māori (Māori knowledge). The enhancement and maintenance of the ‘mauri’ of all living things is central to Iwi cultural values.

Legislative framework	Sections	Requirements
	4	That council has the statutory responsibility to recognise and provide for the protection of cultural heritage from inappropriate subdivision, use and development. As matters of national importance, Council must also ensure the relationship of Māori and their culture and traditions with their ancestral links, water, sites, wāhi tapu and other taonga.
Resource Management Act (1991)	8	That local authorities give effect to or take into account the principles of Te Tiriti o Waitangi. These principles include the duty to act reasonably and in good faith, to consult and to actively protect Māori interests.
Local Government Act (2002) and Reserves Act (date) (via the First Schedule of the Conservation Act)	4	
Local Government Act (2002)	14, 77, 81, 82	Emphasises the importance of councils' relationship with Māori and requires councils to be more active in facilitating Māori involvement in local authority decision-making.
Heritage New Zealand Pouhere Taonga Act (2014)		Heritage New Zealand (HNZ) has statutory responsibility to identify, protect, preserve and conserve the historical and cultural heritage of New Zealand. This includes managing any destruction, damage or modification of archaeological sites under the archaeological authority process ⁷ .
Settlement Act 2014		There is statutory acknowledgement (see section 4.2) of local governing bodies to consult with each iwi in Te Tau Ihu o te Waka ā Māui, on issues that arise as a result of the Treaty Settlements Process. This is in relation to any council activity such as the resource consent process.

4.2 Statutory acknowledgements

The Ngāti Koata, Ngāti Rārua, Ngāti Tama ki Te Tau Ihu, and Te Ātiawa o Te Waka-a-Māui Settlement Act 2014 place a wide range of legislative obligations on the Crown and Local Government to assist Treaty partnerships, engagement and co-management of the natural environment to ensure Iwi outcomes of rangatiratanga and kaitiakitanga are upheld (Stafford. K., 2020. *Personal communication*). The Statutory Acknowledgement instruments recognise and acknowledge Iwi cultural, spiritual and historical and traditional association and significance to an area of land or geographic. feature/s. The areas are recorded in the Deed of Settlements and

acknowledged in statute. The functions of statutory acknowledgements are to require relevant consent authorities, the Environment Court, and the Historic Places Trust to have regard to the Statutory Acknowledgement. It also requires relevant consent authorities to provide summaries of resource consent applications or copies of notices of resource consent applications to the relevant trustees; and to enable the relevant trustees and members of the relevant iwi to cite the Statutory Acknowledgement as evidence of the iwi association with a ‘statutory area’ and the cultural significance of the area.

It is important to note that Statutory Acknowledgements are only ever given over areas of Crown owned land and Crown managed water bodies. Moturoa is not in Crown ownership and for this reason there is no Statutory Acknowledgement over Moturoa. When consent authorities (in this case Tasman District Council) are identifying parties affected by a resource consent application they are required by legislation have regard to statutory areas *within, adjacent to, or directly affected by* the activity. In this case, all eight Iwi with mana whenua in Te Taulhu have a Statutory Acknowledgement over the immediately adjacent Te Taulhu Coastal Marine Area and seven Iwi have a statutory acknowledgement over the immediately adjacent Waimea River. These statutory areas are adjacent to, and may be directly affected by, the NRSBU activity (Cudby. R., 2020. *Personal communication*).

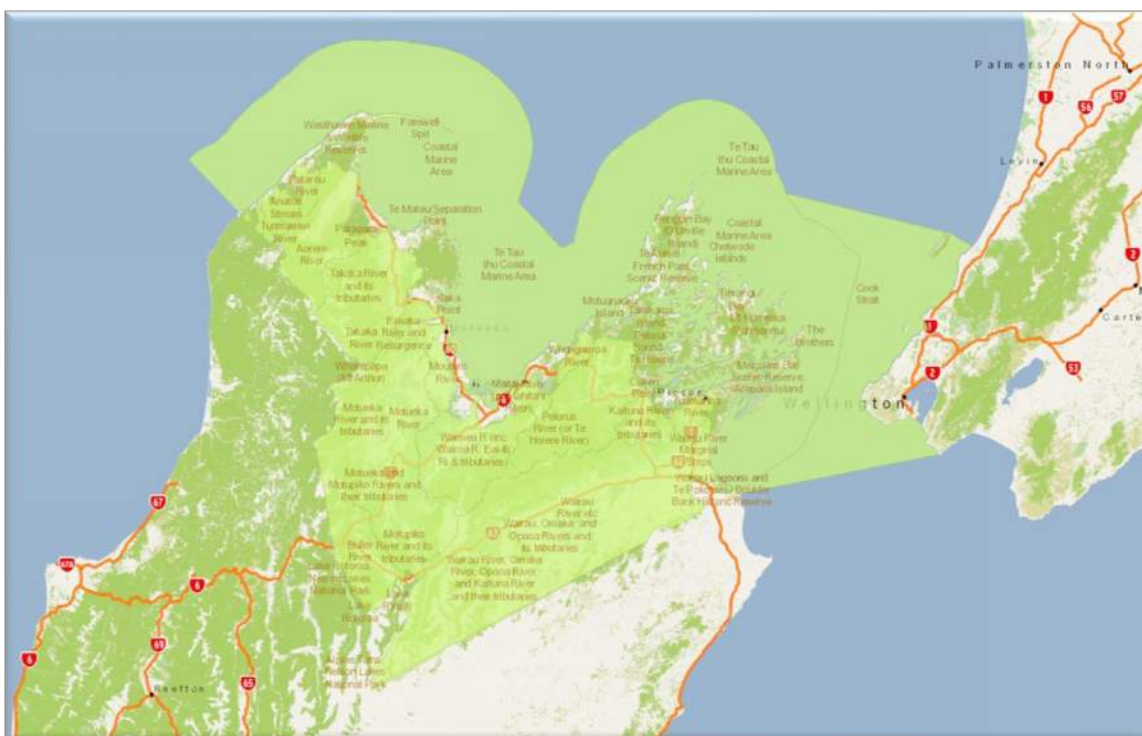


Figure 5: Statutory Acknowledgements combined Te Tau Ihu Iwi map 8.

⁸ Top of the South Maps (2018).
 NRSBU Moturoa / Rabbit Island Biosolid Application
 Cultural Impact Assessment
 Te Aranga Environmental Consultancy

5.0 PROPOSED ACTIVITIES

The proposed activities relate to the Consent Holder NRSBU who are applying for new resource consent for the following activities:

Activity	Resource Consent Type
Application of biosolids to land at Moturoa / Rabbit Island (see figure 6)	Discharge Permit
Incidental discharge of odour to air as a result of applying biosolids to land and the operation of the BAF at Moturoa / Rabbit Island.	Discharge Permit
Operation and maintenance of the BAF and all other land use activities associated with the application of biosolids to land Moturoa / Rabbit Island	Land use consent
Discharge of washdown and stormwater at the BAF to land	Discharge Permit



Figure 6: Proposed Biosolid Application Area

The new resource consents will replace (if consent has expired) or will be in addition to the following existing resource consents: (1) Discharge Permit NN9490379V3 - Application of biosolids to land at Moturoa / Rabbit Island, expired on the 8th November 2020, (2) Land Use Consent RM940534 – Operation and maintenance of the BAF and all other land use activities associated with the application of biosolids to land at Moturoa / Rabbit Island, which has an unlimited duration, and (3) Coastal Permit RM050862 - to occupy the coastal marine area with an underground pipeline from Bell Island WWTP to the BAF.

The BAF has been operating out at Moturoa and applying high quality biosolids pumped from Bells Island Wastewater Treatment Plant to the approximately 600ha of forestry on Moturoa since 1996. The current resource consent includes regular monitoring of the activity and ways to mitigate potential environmental effects of the biosolid, but it seems that forestry growth rates have increased by 10-14%. There are conditions in terms of the previous consent such as exclusion zones (see figure 7) and buffer zones for example 50m from mean high water, 15m from areas where the public has unrestricted access to sites. There is signage that is erected during application to cease public access in application sites. The method of biosolid application out onto Moturoa is as follows:

1. Tankers transport biosolids from the BAF to the application site on the island
2. Travelling irrigator sprays the liquid into the ground
3. Application rates and the location depend on forest age and prior applications
4. Consent limits the application rate and depth where applicable.

NRSBU have consulted with specialists to produce independent specialist reports to contribute to the Environmental Affects Assessment (EAA) application. Along with this CIA report the following reports contributed to that process and included the following: Alternatives to Biosolids Process (Beca), Alternatives: Methods and Locations (Tonkin and Taylor), Forestry and Soils (Scion), Groundwater (Tonkin and Taylor), Coastal Environment (Cawthron Institute), Birds (David Melville), Lizards (RMA Ecology), Odour (Stantec), Public Health (NIWA), Statutory and Policy Assessment (Tonkin and Taylor). All the information produced in those expert reports will contribute to the necessary environmental considerations to mitigate environmental effects.

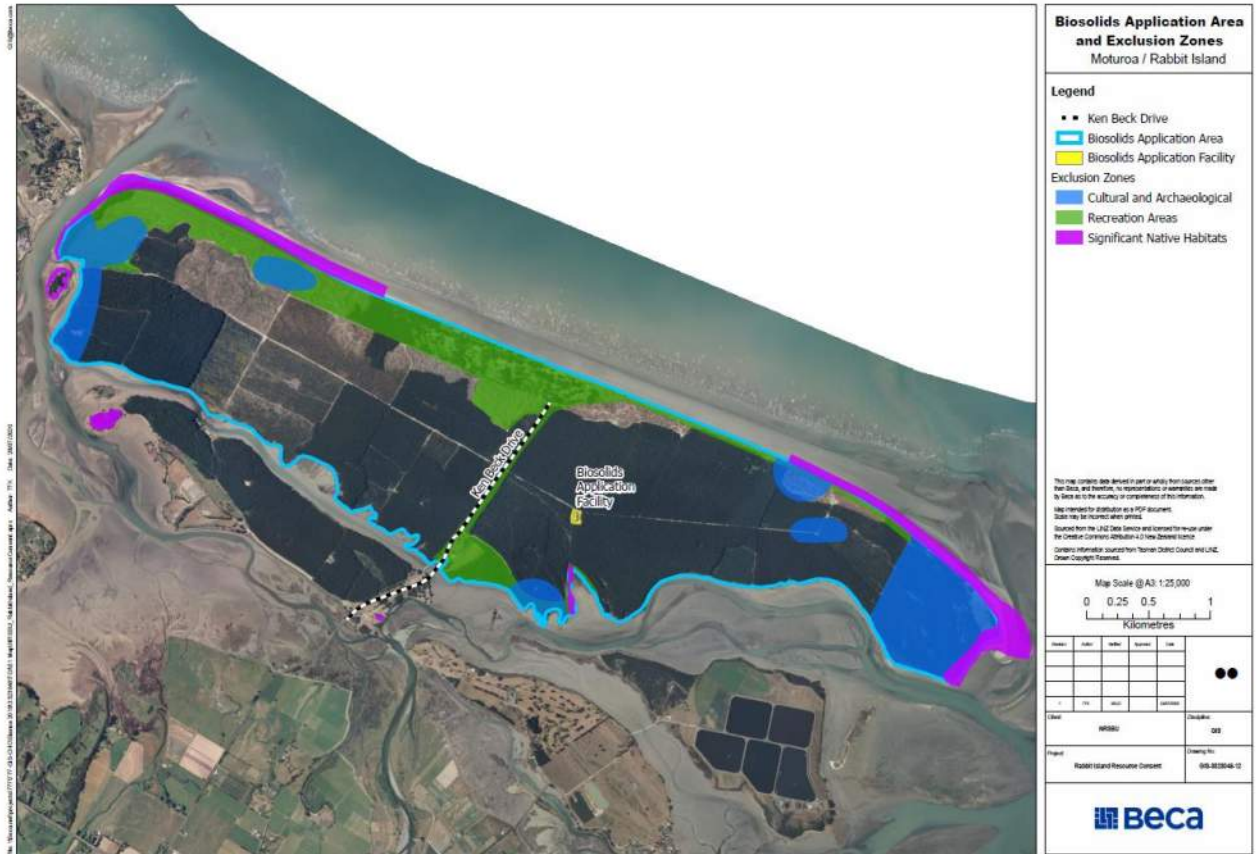


Figure 7: Biosolid Application Area and Exclusion Zone

6.0 CULTURAL CONTEXT OF MOTUROA

6.1 Cultural context of Moturoa

The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga is reflected in the rich Māori history and sites of settlement/kāinga at Moturoa, Waimeha and the wider Te Tau Ihu rohe. The name Waimea was originally “Waimeha”, which means “brackish” or “insipid water”. This name relates to the nature of the river as it passes swamps and mudflats on its way to sea. The significance of the Waimea River therefore relates to the entire catchment, from the waters flowing from the mountains, Kahukura (Gordon Range, Eastern slopes of the Kahukura (Richmond) and Bryant Ranges and the Dun mountain) through the flood plains to coastal waters and out to sea.

Moturoa was the site of early Māori settlement/kāinga since the early 13th and 14th centuries, pākanga, urupā, and māhinga kai sites. It is therefore referred today as a cultural precinct and wāhi tapu area because of the relationship and association of Māori to tapu events that were practiced there. The occupation of Māori on Moturoa signifies a lived history and relationship with the natural environment and an indicator of Iwi identity. Historically, the Kurahaupo Iwi of Ngāti Kuia and Ngāti Apa ki te Rā Tō and Rangitane had resided in Te Taihū with various sites of settlement/kāinga and wāhi tapu and taonga. However, the 1800 – 1830's hekenā migration of Ngāti Rārua, Te Ātiawa, Ngāti Tama, Ngāti Koata to Te Taihū is well recorded and through invasion and raupatu and tukuwhenua, these Iwi settled in the rohe.

The Waimea River formed a water source for the renowned Waimea gardens, located at the mouth of the Waimea River adjacent to a pā and kāinga. Smaller pā and encampments were located elsewhere on the banks of the Waimea River and at the junction of the Wairoa and Wai-iti Rivers. The main pā in the area was just behind what is now the Appleby School site. Around 1,000 acres of cultivation located near the river mouth represent generations of sustained effort by the tupuna. There were huge pits located in the area suggesting gravel extraction. On the western side between Eve's Valley and the mouth of the Waimea, the fertility of the soils has been enhanced by vegetable matter, charcoal, sand and fine gravel. The cultivation land was built up with ash (to provide potash), gravel and fine sand and silt to raise soil temperatures. Some of these organic materials date back to the 14th Century. These sites in modern times have been referred to as the 'Māori soils' signifying occupation and highly productive land that was utilised for indigenous crops like the kumara.

The Waimea was the gateway to the trading route between Whakatū (Nelson) and Te Tai Poutini (West Coast). Goods were often exchanged between the Waimea/Whakatū iwi and Te Tai Poutini tribes. The Waimea iwi offered kumara, dried

snapper and argillite tools as valuable taonga not obtainable on the Coast. While the West Coast tribes offered raw and worked pounamu. The Waimea River and associated tributaries were an important resource gathering area for iwi including the water itself, as kaitiaki over the Waimea River. The harakeke wetlands on the fringe of the Waimea estuary extended up the Waimea Valley towards Brightwater. This extensive area contained pockets of wooded areas. Kahikatea and pukatea were found in the wetter sites, and tōtara, mātai and rimu on drier sites. The Waimea River mouth provided a plentiful supply of harakeke and firewood, which they collected for their own use and to trade with European settlers. In the Waimea, four varieties of harakeke could be found. The fine, long-fibred variety was suitable for net making. A coarse long-fibred type was suitable for ropes and cords, an intermediate type for kete, and a finer short-fibre variety for more delicate work, such as kākahu and tāniko.

Moturoa was known as a māhinga kai and a waka landing site. It was often used as a port or exit point into the bay. There are various kāinga, pā, pākanga sites and urupā scattered throughout the area, which correlates with the many sites of settlement/kāinga in the area. Customary practices included the harvest of food from māhinga kai areas such as lowland forests, motu, wetlands, river systems and estuarine areas. Mako, pātiki and kahawai were taken in the estuarine waters at the mouth of the river. The river environs were also a good source of flax, and clay used in the process of drying the flax came from the river near the inland foothills of the ranges. Access and use of the natural environment included, but is not limited to:

- wai or freshwater fish species such as tuna, inanga, koaro, kokopu, koura
- rongoa or plant species such as kawakawa, harakeke, kowhai, kanono, kahikatea, pukatea, mamaku
- kaimoana or shellfish such as kuta, tuangi, tio, tuatua, paua
- birds or manu such as kereru, kaka, weka.

Some iwi had kaitiaki and taniwha associated to Moturoa and Waimeha who were often in the personification of natural forms like winds, waves, animals, or fish. For example Tutaeporoporo who was a taniwha shark who lived at Waimea Inlet and reflects the intrinsic relationship iwi have with the Taiao.

Iwi are autonomous with their own histories and interests in Te Taihū from Kahurangi Point to the Marlborough Sounds. Iwi therefore have an ancestral relationship with Moturoa and the associated natural environments as reflected in pūrakau, iwi oral histories and the number of archaeological records and cultural sites on Moturoa. The importance of the Moturoa even though we are disconnected to the island and the surrounding moana and whenua has not diminished for Iwi.

6.2 Archaeological context of Moturoa

Archaeologists have completed multiple archaeological surveys and reports for the sites of settlement/kāinga/taonga on Moturoa (Knapp, Nichol and Anderson, Young and Foster). There are twelve archaeological sites recorded on Moturoa and documented on NZAA ArchSite database. The archaeological evidence of this early sites of settlement/kāinga from sites near Appleby and Waimea West includes implements and personal ornaments that have similarities with Pacific Polynesian designs. The fragmented archaeological records associated with sites of settlement/kāinga and the use of taonga by tūpuna (ancestors) along with Māori oral history and tradition are tools and forms of knowledge that inform the rich history of Moturoa, tūpuna. It is important to note that although these sites are recorded, there are other cultural layers and sites that have not been identified in this process. The following archaeological sites have been identified and shown in figure 7:

- **N27/217:** Midden/oven site. A site of settlement/kāinga horizon with midden (pipi and mussel) and oven stones exposed in dune section about 600mm below the surface, piling down face to bank and extends about 10m.
- **N27/132:** Midden/Oven site
- **N27/102:** Midden/Over site on Bird Island - Surface scatter of shell, including mud snail, oyster, cockle, and whelk.
- **N27/216:** Midden/Oven – Cockle Midden spilling down bank cut away to form cycle track. Extends 2m along a bank that is about 1.5m high.
- **N27/131:** Midden/Oven - Cultural material visible across wide area exposing midden and oven stones and charcoal, Hunter Brown Reserve.
- **N27/137:** Artefact – adze, Midden, Oven (intact), Western end of Rough Island
- **N27/213:** Midden/Oven - A fire-blackened sites of settlement/kāinga horizon containing oven-stones, extends over about 10m around informal boat ramp.
- **N27/214:** Midden/Oven – Artefact – stone flakes and oven stones. A dense deposit of oven-stones exposed in beach section on a knoll planted in pines on the edge of the carpark.
- **N27/134:** Midden, oven stones, Artefact – fishing gear. Oven stones and a scatter of elongated pebbles used as net sinkers. There was also an unusual concentration of large rocks, and shell midden in the adjacent beach section. All the remains were scattered over a bed of shells, an ideal spot for flounder fishing. A total of 47 long stones were found in a strip 25m long x 2m wide. The sinker stones range in length from 75 – 160mm. the midden extends 8m across and is 50mm thick⁹.

⁹This information of archaeological sites has been retrieved from <http://www.archsite.org.nz/>

Archaeologists suggest that the sites at the western end of the islands were most likely associated with the Māori fishing village at Grossi Point in Māpua that were occupied as early as 1200AD. The majority of the recorded sites on the island are middens, oven stones, artefacts and fishing related finds suggesting early sites of settlement/kāinga and māhinga kai activities. Many of the sites are found around the coastal margins of the island and are susceptible to erosion.

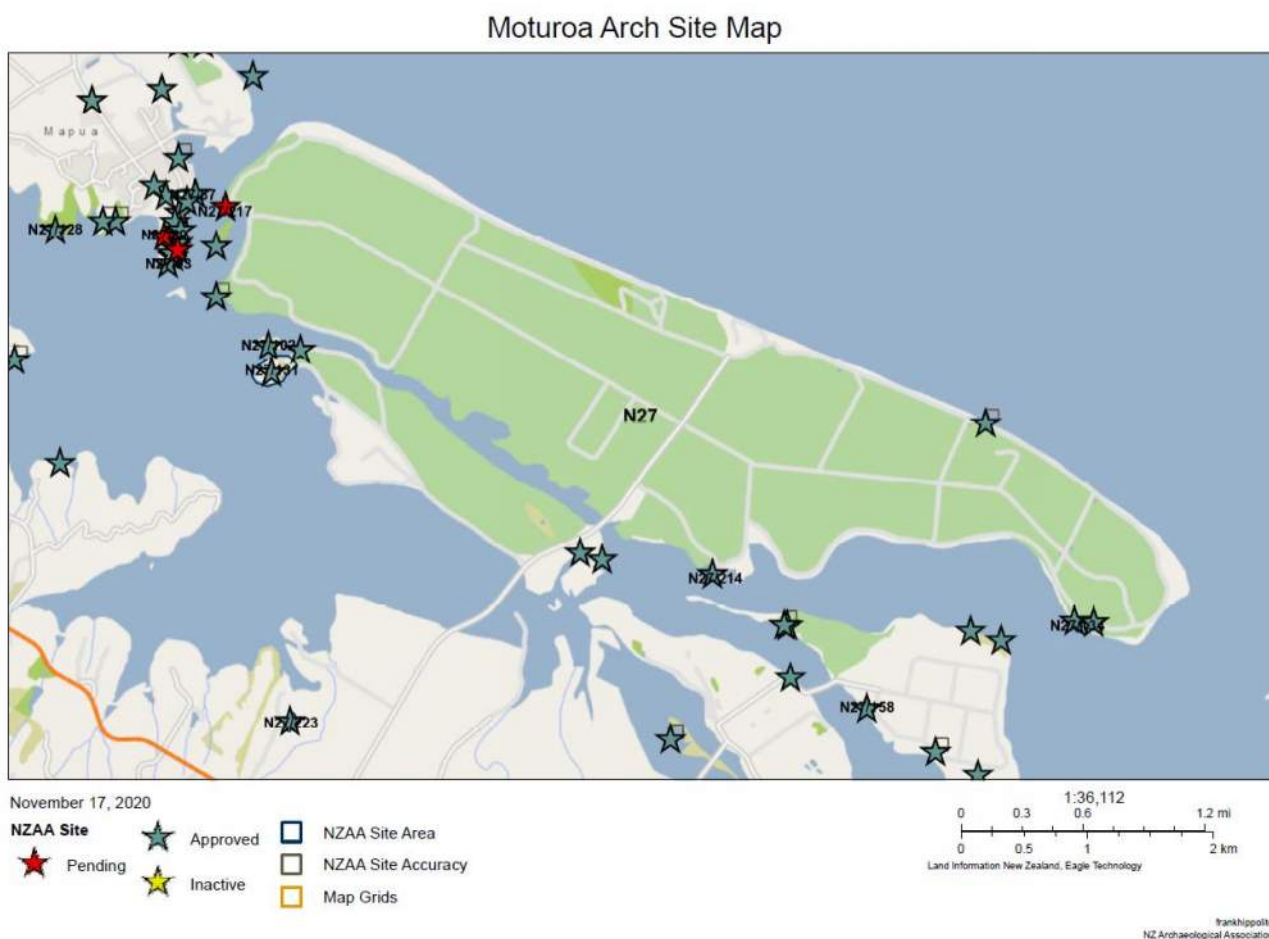


Figure 8: ArchSite map of the Recorded Archaeological Sites Moturoa¹⁰

All archaeological sites are protected by the Heritage New Zealand Pouhere Taonga Act (2014) and the Resource Management Act (1991), but also within iwi management plans, statutory acknowledgements and Te Tiriti o Waitangi. These archaeological sites read in isolation complement the cultural narratives and histories by assisting in identifying the wider narrative and story of the site, but the pūrakau, mātauranga Māori and history that is transmitted through generations of the site is and should be respected in this context. There are sensitive files and cultural layers

¹⁰ Map created in the ArchSite website: <https://archsite.eaglelegis.co.nz/NZAA/Map>

within iwi archives that have not been made accessible to the public to ensure that fossicking does not occur and to protect wāhi tapu from further exploitation from fossicking and damage. It is at the iwi's discretion as to whether this information is shared in the public domain or if it remains confidential.

6.3 Ecological Values of Moturoa

The ecological significance of Moturoa is identified by the natural resources known as 'ngā taonga tuku iho'. Waimeha was a prime location for sites of settlement/kāinga as the area was rich in natural resources, from bio-diverse lowland forest ecosystems, estuarine habitats, alluvial plains, swamplands and coastal sand flats. Whānau, hapū and iwi occupied the region due to the accessibility of food sources māhinga kai areas. Waimeha was dense with native lowland forest stands and gardens. A rich podocarp forest dominated by kahikatea, rimu and southern rata, also housed matai, titoki, rimu, totara and a plethora of bird life. Wetland bird species such as weka, rail, kaka and kererū were harvested and often stored for winter. Below the canopy were nikau palms, mamaku tree ferns, fuschia and many other fruit-bearing and edible plants. Iwi cultivated gardens around trees, in the form of companion planting. The gardens produced huge volumes of potatoes, including Māori potatoes, kumara, kamokamo and other crops. Harakeke, kiekie and raupo were also harvested as productive sources of raw materials for building and weaving. reference

Moturoa was also an extensive Mara Harakeke (flax garden) at the northern end of the island. The pā harakeke extended at least a kilometre of the foreshore. Many of the swamps were bulldozed for the pine forests that exist today. There are four varieties of harakeke that are located in that site. They are fine, long-fibred variety most suitable for net-making, a coarse long fibred type suitable for cords and ropes, an intermediate type for kete, and a finer shorter-fibre variety for the more delicate work of kakahu, tāniko, and other garments¹¹. The swamplands and floodplains south of the Waimeha River were extensive. In and around the river catchment and river mouth was home to freshwater and brackish species including tuna, inanga, and koura. Sub-tributaries of the Waimeha River were also sources of food. The Waimeha River also moved across the plains before the stop banks were established which provided multiples streams, as well as nutrients for the lands when in flood making the land fertile for cultivations.

A priority for iwi is to maintain the ecological integrity of the islands and surrounding estuarine ecosystems, wetlands, tōtara, native flora stands, indigenous flora and fauna species and nesting sites. Modification and development have had negative impacts on the ecological integrity of the islands. Moturoa has been a māhinga kai

¹¹ Mitchell Research, (1994)

area for a very long time, but the continued use of the area as māhinga kai has been severely compromised as a result of treated wastewater from Bell Island. Although Bell Island is managed to treat waste there are tikanga issues with harvesting kai from an area where human effluent is processed¹².

Iwi have a kaitiaki responsibility and obligation to protect the mauri of all living things for the management of natural resources 'ngā taonga tuku iho' of Moturoa Island, which is reflected in the numerous sites of settlement/kāinga on Moturoa and along the coastline adjacent to the Waimea/Waimeha Inlet.

¹² Moturoa / Rabbit Island Reserve Management Plan. (2016).
NRSBU Moturoa / Rabbit Island Biosolid Application
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7.0 NGĀ UARA – IWI VALUES

This section provides an overview of Iwi values in relation to Moturoa.

7.1 Te Ao Māori

Te Ao Māori provides the underlying basis for social, cultural and economic wellbeing, while recognising Iwi role as kaitiaki for the environment. Wellbeing is interconnected and each influences the other, they cannot be separated. Te Ao Māori, the Māori worldview is holistic and directed by values of tikanga, kawa, whakapapa and a relationship with the physical and spiritual elements of the natural world and includes air, land, freshwater, coastal marine environment, springs and groundwater, indigenous flora and fauna. Māori culture acknowledges inanimate and animate things have a mauri e.g. pounamu, maunga, birds and fish, te taiao kātoa. For whānau, hapū and iwi, their spiritual and physical wellness is dependent on their ability to manage and safeguard the natural environment for present and future generations. Therefore, a key kaitiaki management principle is to protect and enhance the mauri of all things.

7.2 Āhikaa-roa - historical settlements/kāinga

The historical occupation and sites of settlement/kāinga in Te Taihū by successive Iwi reflects the long association of tupuna that have lived and died in the rohe. The term āhikaa-roa refers to those tupuna that lived in the rohe for a long time. For present day iwi, there is an ancestral spiritual and physical connection to Moturoa, a link to the past and present, and a kaitiaki responsibility and obligation to manage and protect tupuna sites of settlement/kāinga and māhinga kai areas that continue to sustain all living things.

7.3 Cultural significance of wai

Wai (water) is a recognised element that is precious to the health and wellbeing of all living things and acknowledged under Article II of the Te Tiriti o Waitangi. A sacred taonga (treasure), wai symbolises the wairua link between past and present. For example, the lifeblood of Papatūānuku 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 iwi, their relationship to waterbodies is sacred and intertwined, wai has spiritual and physical elements, and

continue to be an integral and central to Iwi worldview, identity, values, tikanga and traditions.

Tohu are environmental indicators that are essential for measuring the health and well-being of wai. For example, the health and well-being of plants, fish and bird life living in and around water bodies provide an indication of the state of the health of wai. As kaitiaki iwi have a responsibility and obligation to protect and enhance the mauri and wairua of wai, indigenous flora and fauna, natural habitats and ecosystems associated with Moturoa¹³.

7.4 Customary practices

Iwi histories and values include customary practices and use of the natural environment. For example, the harvest of whitebait, fish, birds, tuna, kaimoana from coastal wetland habitats. Traditionally, māhinga mātaimai associated with these habitats were used to sustain the spiritual and physical well-being of Iwi. Although fewer healthy māhinga mātaimai exist today, they are still an important part of cultural life and therefore enhancing and maintaining these areas is even more important.

The provision of healthy and abundant indigenous kai for cultural events is a reflection on the kaitiaki role and management of the natural environment and the mana and well-being of the Iwi. Customary access and use of indigenous materials is central to whānau and Iwi life and includes access and use to māhinga mātaimai coastal marine, flora and fauna and other materials for kai, rongoa (medicine) Māori, building and weaving purposes.

The loss of access to māhinga kai areas prevents Iwi from maintaining their traditional customs and practices associated with Moturoa and the surrounding natural environment. There is also a loss of Mātauranga Māori and the transmission of knowledge between whānau and hapū. The protection and restoration of access areas and the mauri of māhinga kai, ecosystems and species is a key kaitiaki principle to ensure the health and wellbeing of whānau and iwi in the future. Although very few māhinga kai areas exist today, they are still an important part of whānau and hapū life. It is important to Iwi kaitiaki responsibilities and obligations to enhance and expand the few remaining māhinga kai areas.

7.5 Wāhi tapu and taonga tuku iho

There are numerous wāhi tapu and taonga associated with Moturoa. Wāhi tapu provide tāngata whenua with a physical and spiritual link to their tūpuna places and provides evidence of long history and extensive use of the natural environment by

¹³ Tiakina te Taiao (2014). A Māori Cultural Impact Assessment of the Motueka Wastewater Treatment Plant.
NRSBU Moturoa / Rabbit Island Biosolid Application
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Te Aranga Environmental Consultancy

Māori. Sites become wāhi tapu because of the associations with tapu events or objects, taonga, or kōiwi. Wāhi tapu can also signify āhikaa-roa in an area as they are indicators of Iwi identity.

Moturoa was extensively used by Iwi to access food and other indigenous materials. There are remains of traditional campsites and waka landing sites, used as a base from which to gather seasonal food, and widespread along the island. Numerous sites exist near wetlands or at the confluence of tributaries. Wāhi tapu associated with Moturoa include, but are not limited to: urupā, sites used for ceremonial purposes, māhinga mātaimai, māhinga kai, pā sites, and waka landing sites, camping sites, work areas and places for harvesting rongoā.

Moturoa and associated areas were also an important māhinga mātaimai – food gathering area for tupuna. The diversity of habitats associated with this area provided shelter for a wide range of indigenous species. Successive Māori tribes settled in the area and used the natural environment to provide for their food, clothing and shelter.

As kaitiaki, Iwi recognize the importance of protecting cultural heritage because it is irreplaceable, and its destruction can lead to the loss of knowledge, identity, history and sense of community. The whole Waimeha area and associated islands are interconnected and cannot be separated in terms of its cultural and environmental significance.

7.6 Ki Uta Ki Tai

The concept of 'Ki uta ki Tai' outlines the way in which Iwi view the environment. is a way to manage ecosystems and natural environment from a 'whole-of-landscape' approach from the mountains to the sea. This value underpins Te Ao Māori, emphasising the interconnectedness of ecosystems that is intrinsically linked through whakapapa. Māori do not 'compartmentalise' different aspects of the environment but view it as one system. This concept also aligns with ecological approaches such as integrated catchment management that can be applied in this situation. Natural ecosystems, catchments and terrestrial environments are all interconnected and influence each other significantly.¹⁴

7.7 Tino-rangatiranga and Kaitiakitanga

The kaitiaki role is focused on making decisions about how to manage natural environment, using mātauranga Māori, according to tikanga or protocols of Iwi values. The ability to maintain kaitiakitanga over Moturoa is reliant on Iwi i having decision-making powers over natural resources and māhinga kai, while providing

¹⁴ Tiakina te Taiao (2015). Cultural Impact Assessment, Harakeke Ltd Development.
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protection of wāhi tapu¹⁵. Kaitiakitanga is a long-term intergenerational obligation for future generations. Through the relationship with ngā kaitiaki atua, the iwi has a duty or obligation to their ancestors, those living and future generations to come, to take care of, and protect places of cultural significance, natural resources and other taonga in the Tasman District.

In former times, the Iwi kaitiaki had ultimate decision making on access, use and management of the natural environment. That role continues today in a contemporary co-management post settlement setting with the outcome to protect and enhance the tangible physical and intangible spiritual elements of the mauri of the natural environment taonga¹⁶.

¹⁵ Tiakina te Taiao (2014). A Māori Cultural Impact Assessment of the Motueka Waste Water Treatment Plant.

¹⁶ Tiakina te Taiao (2010). Draft Cultural Assessment for Assessment of Environmental Effects Land Use and Subdivision Consents: Carter Holt Harvey HBU Ltd, Kina Peninsula, Moutere.

8.0 NGĀ TAKE – IWI ISSUES

8.1 Protection of ecosystems and biodiversity “Ngā taonga tuku Iho”

There is a lack of protection and recognition of, and significant loss of ecosystems and biodiversity values important to Iwi, as a result of inappropriate historical activities, practices and management of Moturoa and the associated motu and Waimeha estuary. The modification and development of the islands has impacted on the ecological integrity of the Islands. The past customary activities, harvest and use of indigenous flora and fauna have been reduced over the last 30 years. The protection of ecosystems and biodiversity including the surrounding estuarine ecosystems, wetlands, tōtara and native flora stands, indigenous flora and fauna species and nesting sites is therefore important to Iwi to protect and enhance cultural activities and community wellbeing.

A major concern for Iwi is the restrictions (and in some cases the prohibition) on the ability to take kaimoana and other customary food resources, due to their scarcity and pollution of the estuaries, wetlands and beaches of Tasman Bay/Te Tai-o-Aorere. Coastal development and activities in and around land and water resources have led to degradation, damage and destruction of wāhi tapu, cultural heritage and sites of significance to Iwi. It is therefore important the Iwi provide cultural impact assessments for any activities in the rohe to assess the potential impacts on cultural ecological values and ensure the spiritual and physical wellbeing of taonga important to them including natural resources, people and sites are enhanced, maintained or protected and kaitiaki responsibilities upheld¹⁷.

8.2 Protection of wāhi tapu areas

There is a lack of protection and recognition of Māori cultural heritage and values, and these values are at increased risk from continued land use activities, practices and management. Past coastal development and activities in and around land and water resources have led to degradation, damage and destruction of wāhi tapu, cultural heritage and sites of significance to Iwi.

There are six recorded archaeological areas protected on Moturoa as highlighted on the applicants map. NRSBU has provided a buffer zone around these areas and no discharge to land is undertaken in those areas. However, there are also known cultural heritage areas, which have not yet been uncovered and will be subject to accidental discovery protocols. It is important to recognize that depending on the

¹⁷ Tiakina te Taiao., (2013). Cultural Impact Assessment Tasman Cycleway Trust.
NRSBU Moturoa / Rabbit Island Biosolid Application
Cultural Impact Assessment
Te Aranga Environmental Consultancy

find, there will be cultural rituals and protocols to observe to bless the area to ensure the spiritual safety of people.

For some Iwi, the aspiration would be to protect Moturoa from any future development and the discharge to land of treated waste in order to protect wāhi tapu areas and ecological integrity of the site/

8.3 Lack of Cultural Mapping

There is extensive archaeological information and records for Moturoa and multiple maps that have been developed over the years. However, there is limited cultural narrative story maps to inform the Iwi cultural layers of information such as māhinga kai areas and urupā. There is an absence of cultural narrative story maps in planning documents and interpretation panels to inform the public of the cultural significance of Moturoa to Iwi and to protect wāhi tapu areas.

8.4 Customary use and access to māhinga kai

There is a lack of protection and recognition of, and significant loss of Māori māhinga kai values as a result of inappropriate historical activities, practices and management of Moturoa and the associated motu and Waimeha estuary. The destruction of māhinga kai is outlined as a key issue in the Moturoa Reserve Management Plan. The loss of access to māhinga kai areas prevents Iwi from looking after the ecological integrity of māhinga kai areas and associated indigenous species. It also prevents Iwi from maintaining their traditional customs and practices associated with Moturoa and the surrounding natural environment and the transmission of Mātauranga Māori between generations.

The Biosolids Application Facility activity and the discharge to land of high quality biosolids are not compatible for the collection of food at traditional locations in and around Moturoa because of the potential for contamination to māhinga kai areas and to people. Although very few māhinga kai areas exist today, they are still an important part of whānau and hapū life. It is important to Iwi kaitiaki responsibilities and obligations to protect, enhance and manage the few remaining māhinga kai areas.

8.5 Management of Biosolid Facility

The NRSBU BAF holds biosolids which are a product of the wastewater treatment process from Bell Islands and applies the high quality biosolids to land in the PFL Olsen forestry blocks on Moturoa. A 50m buffer zone in line with consent conditions separates the discharge to land areas and the outer area of Moturoa. Although the

plant is managed well, Iwi are concerned that there may be potential risks from the increase in treated waste loads to the facility and the potential of biosolids spilling out into the environment in the event of the system being overloaded.

Iwi also have concerns that the current and future application to land loads may not align to the land area required from rotation and harvest of forestry blocks. A co-ordinated approach between TDC, PFL Olsen, NM Waste and NRSBU is required to ensure current and future load limits are managed appropriately within the current forestry block footprint.

Although the scope of this CIA report is related to the discharge to land resource consent proposal, Iwi also identified issues related to the management of Forestry harvest practices and the protection of wāhi tapu areas.

8.6 Degradation of waterways at Moturoa and Waimeha Estuary

The degradation of the mauri of waterbodies is a concern for Iwi. The cumulative effects of the potential for overloads on the wastewater system and discharge of biosolids and contaminants such as trace and heavy metals; and discharges from other industries to the Waimeha Inlet, may impact on the mauri of coastal marine environment and waterways.

The location of the WWTP on Bells Island and the Biosolid facility on Moturoa has been an issue for Iwi for a long time because of the incompatible activity of wastewater practices and management and māhinga kai management and the impact on the ability for Iwi to harvest kai from the land and coastal waters. These issues are referred to in other CIA reports and historical submissions to NRSBU resource consent renewal applications.

Iwi aspirations are to move the Biosolids Application Facility Facilities away from the marine coastal areas and freshwater estuaries and rivers that support māhinga kai areas. However, a transitional approach is required to take into account a range of factors including growth and development in Nelson and Tasman, cost, technology and land availability.

8.7 Climate Change

Climate Change is a significant factor that must be taken into account for all regional infrastructure located in the coastal marine areas and near coastal environments due to the potential for low lying coastal areas to be inundated with sea level rise, heavy rainfall events, floods and cyclones. Iwi are concerned that climate change may accelerate impacts on BAF infrastructure if they continue to be located at Moturoa

and Bells Island and that NRSBU have not taken this into account in future planning and long-term adaptive management.

8.8 Future Development and Growth

There is a high demand for land and houses in the Nelson and Tasman region and population increase is expected to grow, with increased loads on the BAF system. Iwi are concerned that Councils planning projections for increased residential and industrial development have not taken into account the potential increase in loads on current infrastructure facilities and the staging of maintenance and upgrade requirements that may be required to meet demand.

A key issue is that the BAF infrastructure at Moturoa and Bells Island may not be able to cope with the predicted load increase to the system because the NRSBU planning and future load predictions are out of sync with the development taking place on the ground. There is the potential for increased pressure on the current infrastructure and potential for additional impacts on the natural environment.

8.9 35-year term for resource consent

The NRSBU was recently granted a renewal of their resource consent for a further 35-year term for the biosolids activity. The resource consent conditions provide for a 5-year review of the activities, with respect to consent conditions of review of monitoring and technology. Iwi do not agree with 35-year terms for resource consents because infrastructure continues to be located on or near the coastal marine environment and freshwater bodies.

Iwi prefer a shorter resource consent term of 15 years to enable the applicant to evaluate and assess wastewater practices and management to restore and deliver positive net benefits to the environment. The shorter term is a response to Iwi grievances over the wider historical discharge of raw sewerage (not biosolids) from Bells Island into the Waimeha estuary over the last 70 years and Iwi having limited decision-making powers over infrastructure. Although the grievances are in relation to the Bells Island case there is still a concern from Iwi around human effluent activities of any sort close to the coastal marine environment. It is also an incentive to align with Iwi position for wastewater infrastructure to be located away from coastal marine environments and freshwater bodies and provides an end point and target to stage the relocation of infrastructure.

8.10 Iwi capacity issues

Iwi respond to a multi-disciplinary range of projects from Councils, Crown, applicants and Communities. NRSBU engaged with Iwi in May 2020 and although Iwi are appreciative of the early engagement, each Iwi has its own entity and operating model and also has limited capacity and capability to deal with the technical information required for projects.

It is important for applicants to understand that there are competing priorities for iwi and that often the timeframes of projects don't line up with timeframes of Council projects. Resourcing and capacity are major factors for iwi having the ability to be involved in the project. This does not necessarily mean that the issue is not important. It is also common for iwi to be the last engaged and put in the category of stakeholders or community when in actual fact they are both governance and also operations so make decisions at the high level, but also contribute to the technical aspect of a project. Iwi time also needs to be reimbursed accordingly and that iwi time is incredibly precious. This will be determined by each of the iwi Trusts and is not often a blanket approach.

8.11 Cultural Health Index Monitoring Programme

There is extensive scientific environmental monitoring data collected and independent specialist reports commissioned for the AEE Biosolids Application Facility. However, there is no Cultural Health Index monitoring or cultural baseline data from a Te Ao Māori lens based on the state of Moturoa from the past, present and future aspirations.

Iwi have concerns over the health of Moturoa in particular the impacts on freshwater bodies, the coastal marine areas and terrestrial environments including soil health. There have been questions raised around heavy metals, trace metals as well as other contaminants in the waterways and in the soil.

Iwi would also like to understand and have access to NRSBU monitoring data have an understanding of the baseline monitoring for the area. There seems to be some inconsistencies with monitoring over the years. Iwi also recognise that there are major gaps for cultural health monitoring in the estuarine and marine spaces and see the opportunity to exercise cultural monitoring.

9.0 RECOMMENDATIONS

The following recommendations are provided to NRSBU, Tasman District Council and Tasman Forest Ltd to mitigate potential adverse effects on the cultural values of Iwi as a result of the NRSBU infrastructure assets across Bells Island, Best Island and Moturoa, the site of the Biosolids Application Facility, management practices to discharge treated wastewater and biosolids to land/forestry blocks.

9.1 Protection of wāhi tapu and taonga

The protection of wāhi tapu and taonga on Moturoa is of immense importance to Iwi and includes pā sites, ditches, terracing, kōiwi, kumara pits, hangi stones, gardens and modified soils, middens, artefacts, urupā, battle grounds and waka landing sites, waka routes, kāinga, māhinga kai, taonga species, natural ecosystems and water bodies.

A buffer zone of 200 metres is required for the current archaeological and cultural areas to provide adequate protection and retirement of these areas from any activities due to the high significance of Moturoa to Iwi.

Iwi therefore recommend a 'Iwi Monitor Protocol' for any activities on Moturoa. It is important that this protocol is incorporated across the entities of NRSBU (TDC, NM Waste and PF Olsen) to align Iwi recommendations across the entities to inform their respective practices, planning and management documents. Examples of activities that will require Iwi monitor includes earthworks, trenching, piles, removal of top-soil, track making. Although this application does not have earthworks relating directly to biosolid activities Iwi still recommend that NRSBU follow the process of Accidental Discovery. The preferred agencies to undertake the Iwi monitor work includes Arewa, Te Arahanga and Ngāti Kuia.

The protection of taonga includes indigenous flora and fauna, biodiversity, waterways and natural ecosystems. The promotion of restoration projects with indigenous plants to support bird life and to enhance and protect coastal environmental areas is also recommended to strengthen protecting these sensitive areas.

Kaumatua wish to remind the Proposers that in addition to their obligations under the Resource Management Act, they are also bound by the provisions of the Historic Places Act and the Antiquities Act. Because the general area has such a rich archaeological history, kaumatua insist that there be a preliminary survey by a registered archaeologist of the sites in the potential event of any construction work.

Iwi also wish to remind NRSBU and its agencies that they are bound by the provisions of the Historic Places Act and Antiquities Act. Because the general area has such a rich archaeological history, Iwi also require an Accidental Discovery Protocol, if Iwi monitors cannot be onsite to support staff and or third parties that may encounter archaeological or cultural material¹⁸

9.2 Review of Archaeological Map and Cultural Mapping

Whānau have been involved in the development of cultural context reports for NRSBU over the last 26 years and provided information on sensitive wāhi tapu areas to be protected from the then current and potential future activities. Unfortunately, the NRSBU map and protection measures put in place do not adequately protect wāhi tapu areas.

Iwi recommend a work programme to review, evaluate and assess current archaeological sites and known sensitive cultural sites/areas not marked on the NRSBU map, due to the historical ad-hoc mapping of sites and the lack of understanding by NRSBU entities to appropriately protect sensitive wāhi tapu areas and provide for associated buffer and exclusion zones for any activities that may impact on Iwi cultural values.

There are currently six buffer zone areas marked on the NRSBU map, however, there are several other unmarked sensitive cultural areas not recorded on the map. This information is held by whānau kaitiaki as 'silent files' and is not made public on maps to avoid the potential for fossickers to dig up taonga material. Instead, Iwi preference is to undertake a site visit to evaluate, assess and identify buffer areas to include cluster of sensitive sites and update the map accordingly to provide understanding of the cultural context of Moturoa and to retire those areas from forestry, recreational and discharge to land activities.

This additional work programme to develop a robust cultural map will help to inform the Moturoa Reserve Management Plan and NRSBU entities and their associated planning, management and practices.

9.3 Restoration and Enhancement Projects

Iwi seek the restoration and enhancement of the indigenous biodiversity of Moturoa to ensure the ability for Iwi to continue customary access, use and practices. Moturoa is a unique ecosystem with lowland forests, wetland areas, and dune ecosystem that support an array of birdlife and other species. The retirement of sensitive ecological areas from forestry activities is required on Moturoa and will

¹⁸ See Appendix 1

complement the Waimeha Inlet restoration project and contribute to restore the mauri, cultural and ecological integrity of Moturoa. Iwi promote the use of indigenous plants for rongoa and taonga bird species in restoration projects to enhance customary practices.

Iwi also recommend having input into landscape design to recognise the tapu status of the area, which could be in the form of a 'pou whenua' or interpretation panels. This would acknowledge the importance of the area to iwi and be a good educational opportunity for the public. Moturoa has burial and pākanga sites and it is recommended that the public don't enter that tapu area and possibly other sites on Moturoa. Having input of iwi into signage would assist in ensuring that wāhi tapu areas are protected and avoided by the public.

9.4 Habitat Restoration

The following recommendation is from the Moturoa Reserve Management Plan and is repeated here to emphasise the importance to whānau and Iwi to implement action on the ground over a wider area buffer area of the coastal marine environment. The potential exists for creation, maintenance and enhancement of indigenous habitats on the Islands. Restoration of the Islands' coastal margins has inherent biodiversity value and would also provide ecosystem services. A buffer of indigenous vegetation could be formed between the plantation forest and the shoreline (on Moturoa/Rabbit Island, much of the coastal margin is classified as Recreation Reserve). This vegetated buffer would improve the aesthetic values of the Islands and assist with the filtering of post-harvest sediment runoff, compared with the hard edges that are present now'. Iwi acknowledge the SNA protected areas and exclusion zones for recreation areas due to the significance of the area for birds and their habitat areas.

9.5 15-year term for resource consent

Iwi recommend a 15-year resource consent term as an alternative to the 35-year term. This would allow for better management of a dynamic system with regards to climate change issues, and the need to move this activity inland sooner than later. Long terms do not necessarily allow for appropriate environmental decisions to be made.

9.6 Cultural Health Index Monitoring Programme (CHI)

Iwi recommend the development and implementation of CHI programme to collect data based on Te Ao Māori values and indicators of the natural environment. This work will complement the science data and monitoring and inform better planning and management practices. The attributes that are monitored include biodiversity and ecological cultural values, soil health, waterbodies, coastal marine areas and māhinga kai areas. The recommendations in the CHI report will also inform resource consent applications and ensure monitoring of resource consent conditions to measure the state of the health of Moturoa as a whole entity.

9.7 NRSBU Environmental Plan

The recommendations in this report and the historical cultural context reports should also inform the NRSBU Management Plan and environmental strategies for Moturoa and Bells Island and any future infrastructure activities on other islands. Whānau and Iwi have identified issues and recommendations over the last 30 years for wastewater infrastructure activities located near coastal marine environments and freshwater areas and would like to see NRSBU provide positive restorative net environmental benefits to Moturoa and Bells Island going forward. In addition, future planning must include assessment of other site locations for wastewater infrastructure away from coastal marine environments and freshwater areas.

9.8 Exclusion Zones

The Iwi workshop with Jamie Ataria Māori Scientist Cawthron and Chris Purchas Tonkin and Taylor was very informative for Iwi and informed discussions on the relevance and application of Tapu and Noa values with respect to wastewater activities and wāhi tapu areas.

For Iwi the discharge of raw and treated sewage into the moana or onto terrestrial areas where there are cultural sites is offensive and highlights the importance to manage tapu (sacred) and noa (ordinary) spaces. It is recommended that Iwi and NRSBU collaborate to develop spatial planning and cultural narrative story maps to identify 'exclusion zones' for protection of wāhi tapu areas and māhinga kai areas away from wastewater activities.

9.9 Proof of Consultation

Not all Iwi participated in the engagement process and this CIA report due to a lack of capacity and or priority workstreams. Those Iwi will determine how they

participate in the resource consent renewal process. It may include formal submissions, CIA report or Proof of Consultation. A Proof of Consultation outlines Iwi general issues and recommendations.

9.10 Review of Iwi representation on NRSBU

The Iwi working group discussed the need to review the number of iwi representation roles on the NRSBU. There is currently one person on the NRSBU board, who is a central communication for the 8 Iwi and NRSBU. It is recommended to consider a 'three waka' representation model. That is increase the one Iwi role to three Iwi reps, one Iwi rep for each waka; Kurahaupo, Tokomaru and Tainui. The workload can be shared amongst the Iwi reps and each will bring different skills and experience to the role to assist NRSBU make decisions. The Iwi Trusts are to consider the 'three waka' representation model and will advise NRSBU if they wish to progress discussions or not.

It is important for NRSBU management to communicate summary of meeting outcomes to 8 Iwi and provide a yearly report to the Iwi Trusts on the management of the infrastructure activities, monitoring data, state of the environment reports. Any accidental discovery finds must be reported to the Iwi Trusts on the same day. If there are additional projects such as the development of interpretation panels, then these need to be co-designed with Iwi Trusts. Te Tau Ihu Iwi acknowledge the annual hui that will continue to take place as a result of the consent conditions under Bells Island and continue to work with NRSBU to build a better relationship going forward.

10.0 KUPU WHAKATEPE - CONCLUSION

The Cultural Impact Assessment (CIA) provides a tool that enables an understanding of the significance of Moturoa, while emphasising the importance of maintaining and protecting cultural landscapes, wāhi tapu, taonga, natural resources, biodiversity and ecosystems significant to Iwi in this area. Iwi identify the whole area as a wāhi tapu and of cultural significance. Te Tiriti o Waitangi guaranteed the protection of Māori custom and cultural values. This right extends to the protection of tino-rangatiratanga - the full authority, status and prestige as regards to Māori possessions and interests. The ecosystem from mountains to the sea is a taonga to Iwi with those natural resources being integral to all life and to Iwi customs and traditions. Therefore, maintaining, protecting, and enhancing the environment is vital for the well-being of Iwi; mismanagement impinges directly on the ability of Iwi to practice customs and traditions associated with the ecosystems and associated water bodies.

The Te Ao Māori understanding of viewing the landscape is based on the concept 'ki uta ki tai' from mountains to the sea, therefore viewing the area as an interconnected whole. In modern times this concept still applies but is complex because of a new land tenure system, modification and privatisation of ancestral lands. However, the privatisation, modification and development of Māori land does not remove the kaitiaki obligation to manage and safeguard whenua, natural resources and wāhi tapu for future generations and maintain cultural integrity and the Iwi identity to this land.

The recommendations made in response to the resource consent renewal, outline Iwi aspirations to protect and enhance the proposed Moturoa. Continual communication and dialogue are a key component of adhering to Iwi values and priorities and mitigating any cultural impacts. Iwi therefore will only support the proposed activity if the recommendations and conditions given are adhered to and that kaitiaki aspirations are honoured to ensure Iwi are included in the resource consent process and future decisions relating to Moturoa. Iwi would like to acknowledge those involved in the development of this application in particular NRSBU, the specialist experts, and Duncan Cotterill staff for their support and patience.

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12.0 GLOSSARY

Kupu Māori	Kupu Pākehā/English translation
Āhikaa-roa	Title to land through long-term sites of settlement/kāinga sites of settlement/kāinga
Atua	God
Awa	River
Hapū	Sub-tribe
Hekenga	Migrations
Heke	migration
Hinaki	Tuna catching net/basket
Ingoa	Name
Iwi	Tribe
Kai	Food
Kaimoana	seafood
Kaitiaki	Guardian
Kaitiakitanga	Guardianship, stewardship
Karakia	Prayer
Kawa	Marae protocol
Kete	Flax basket
Kōiwi	Human remains
Korowai	Feather cloak
Mauri	Life principle, essence of all living things
Māhinga kai	Food gathering places
Māhinga Mātaitai	Customary seafood gathering site
Mana	Prestige, authority, influence
Mānaakitanga, mānaaki	Hospitality
Iwi	Authority over land
Manu	Bird
Manuhiri	Visitors
Mātaitai	Customary seafood gathering site
Mātauranga	Knowledge
Maunga	Mountain
Moana	Sea, ocean
Ngā	Plural
Ngā taonga tuku iho	The treasures passed down from the tūpuna.
Pā	Fortified village
Pākanga	Battle
Papakāinga	Village, settlement, communal Māori land
Pakohe	Argillite
Puku	Stomach
Raupatu	Conquered, confiscated.
Rongoa	Māori herbal medicine
Roto	Lake
Tāngata whenua	People of the land
Taonga	Treasure
Te Tau Ihu o te Waka ā Māui	The Top of the South Island
Tino-rangatiratanga	Self-determination, autonomy
Te Ao Māori	The Māori worldview
Te Tai o Aorere	The Tasman Bay
Te Tiriti o Waitangi	The Treaty of Waitangi (Māori version)
Tikanga	Protocol
Tohi	Baptism
Tohu	Sign, indicator
Tukuwhenua	Gifting land

Kupu Māori	Kupu Pākehā/English translation
Tūpāpaku	Dead body
Tūpuna	Ancestors
Urupā	Burial ground
Wāhi ingoa	Place name
Wāhi tapu	Sacred place
Wai	Water
Wairua	Spirit
Whakatauki	Proverb
Whakapapa	Genealogy
Whānau	Family
Whariki	Mat

13.0 APPENDICES

13.1 Appendix 1 – Accidental Discovery Protocol

There is a high risk of accidental discovery occurring in the proposed area. An accidental find is when taonga, kōiwi or wāhi tapu are revealed e.g. through earthworks or erosion. The islands are considered by Iwi iwi as designated cultural precinct, recognising the island as a whole as a discovery hotspot. Iwi iwi do not support activities that require earthworks as a result of the threat and risk of damaging both taonga and wāhi tapu sites. In the event of an accidental discovery the following protocols have been implemented to mitigate any damage to and/or fossicking of wāhi tapu, taonga and kōiwi. Adequate measures must be taken to avoid and mitigate discoveries or destruction of cultural sites, so an accidental discovery protocol is not needed.

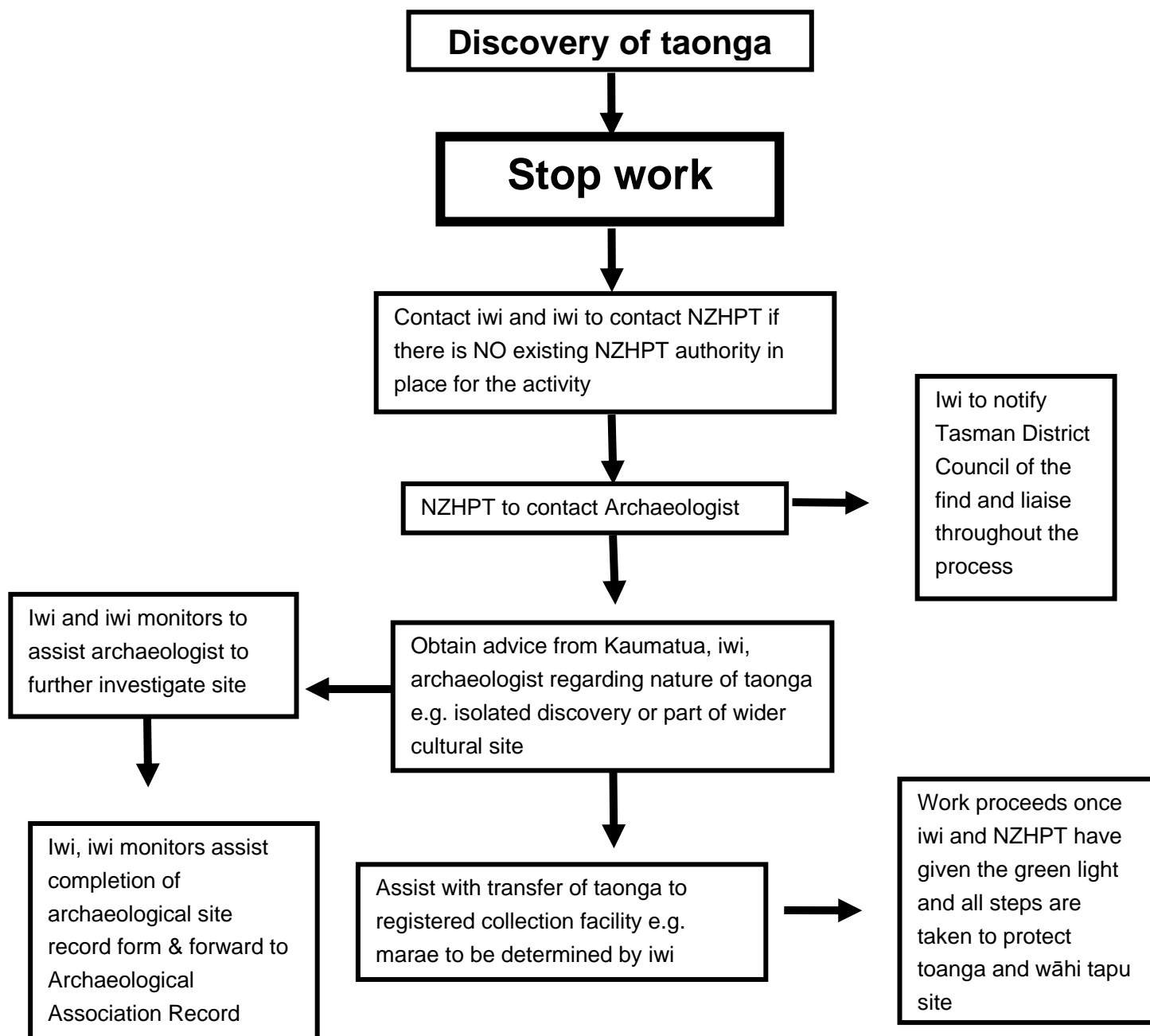
13.2 Taonga Discovery Protocol

Taonga or 'ngā taonga tuku iho' (gifts handed down from the ancestors) are recognised but not exclusive to, physical tangible heritage places that can be described as those land-based places created, formed or shaped by earlier inhabitants or tūpuna¹⁹. These can be archaeological sites such as urupā (burials), pā, hangi pits, terraces, oven stones, middens, stone/rock structures, rock art, waka, house sits, pounamu, modified soils, gardens, pakohe (argillite), fishing nets, sinkers, toki (artifacts), tools, weapons, Māori built heritage places such as marae buildings, wharenuī (carved meeting house), pataka (food storage house), whare (house), post holes from remnant whare, sites of settlement/kāinga sites, carvings, artworks, and other structures such as waharoa (gateways) and various other taonga.

Taonga also reflects natural heritage sites such as natural features, with traditional activities (e.g. springs, trees, swamp, caves) or a hapū and iwi landmark (e.g. mountain, river, lands, sea/lake, village, taonga species, pā harakeke (flax harvesting area) where no human activity is evident. Taonga also includes intangible heritage places where no visible feature or evidence is present but where a significant event or traditional activity may have occurred such as a battlefield, waka landing sites, places of meeting, of learning, of ritual, fishing grounds, taniwha den to name a few. In the case of islands various traditional activities have taken place here, there is evidence of sites of settlement/kāinga, warfare, burials, taonga have been found large māhinga kai site to harvest natural resources and kai species, an

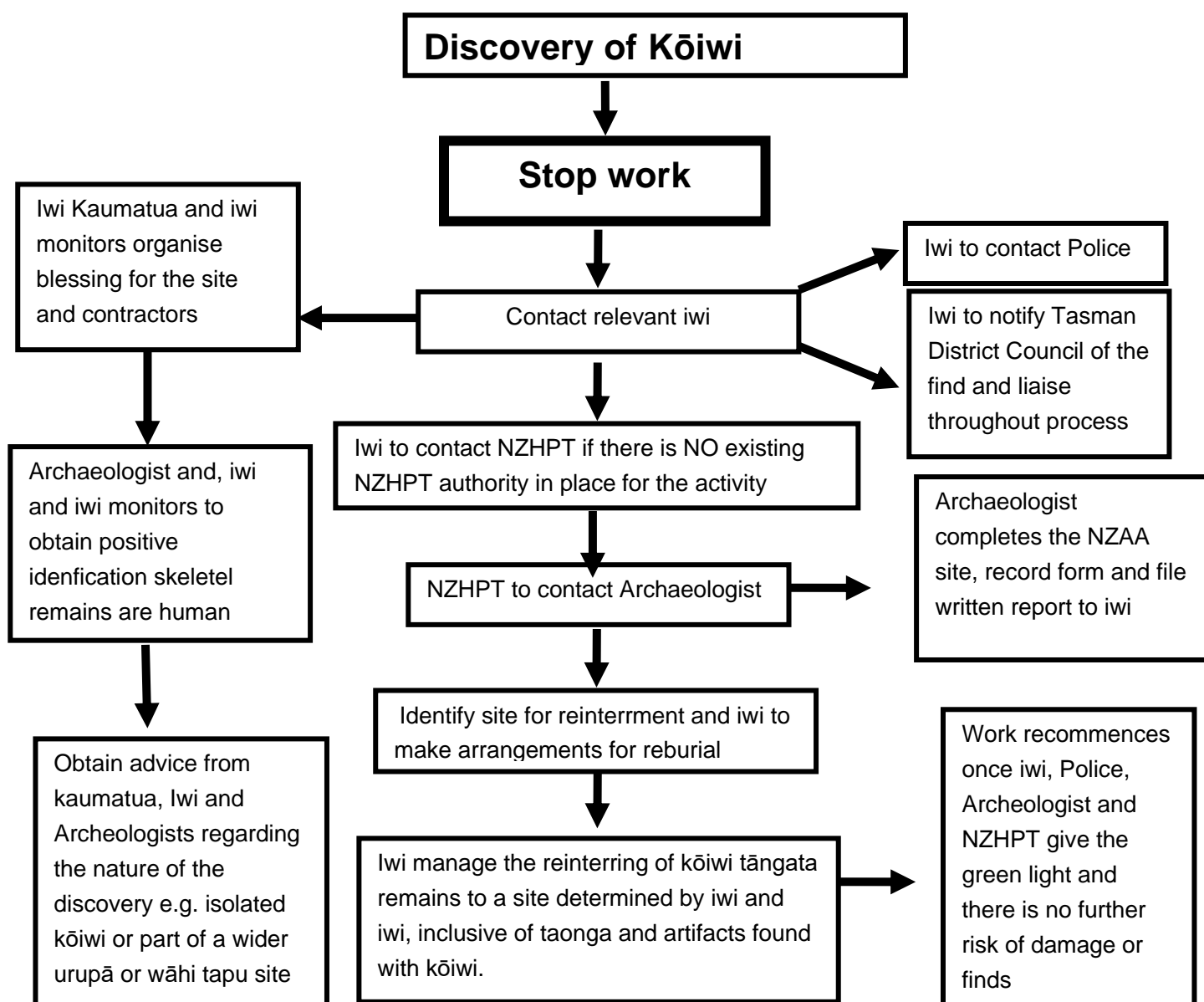
¹⁹ Pouhere Taonga - Heritage New Zealand Website, retrieved from: <http://www.heritage.org.nz/protecting-heritage/maori-heritage>.

extensive waka landing site, and marakai (gardens). The following outlines the process in the event of a taonga find.



13.3 Kōiwi Tāngata Discovery Protocol

Kōiwi tāngata are identified by iwi Māori as the remains of deceased tūpuna and is highly tapu, requiring tikanga to facilitate the management of such discoveries. Pouhere Taonga refer to kōiwi tāngata as human remains particularly referring to bones that have not been made or incorporated into an artifact. 'Cultural items' refers to any taonga/artifacts discovered with the kōiwi tāngata/human remains and that kōiwi tāngata are not considered an artifact²⁰. Taonga that is found with kōiwi tāngata must be reinterred with the kōiwi. Because the parts of the Motueka area are culturally sensitive areas, there is potential for kōiwi tāngata to be revealed. The following outlines the process if this event is to occur.



²⁰ Pouhere Taonga - Heritage New Zealand website, kōiwi tāngata guidelines, retrieved from: <file:///Users/aneikayoung/Downloads/AGS%208%20Kōiwi%20Tangata%20Aug%202014.pdf>.