

Karapiti Incident

Waipuerawera/Waikato River Cultural Impact Assessment

PREPARED BY

Ngā Kaihautū o te Awa o Waikato

Tūwharetoa Māori Trust Board's Waikato River Committee

September 2020



TŪWHARETOA
MĀORI TRUST BOARD

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Figure 1: Spill site 05/03/2019 – Source: TMTB

He Mihi: Acknowledgements

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Wāhanga Tuatahi – Ngā kōrero timatanga



Introduction

On 19th February 2019, an incident occurred at Wairakei Geothermal Power Station. A technical malfunction of the reinjection system at Well WK407 caused geothermal fluid to be redirected to a storage pond. The pond is located on the Karapiti Land Block next to a gully on the Waipuwera river.

The rate of discharge into the pond continued undetected for six days enabling geothermal fluid to collect which resulted in a failure of the pond's ability to cope with the excess volumes. The northern side of the pond eroded due to saturation and eventual slumping into the Waipuwera Valley. This caused an additional slip depositing further sediment into the stream. It is estimated that approximately 44,000m³ of sediment, ash and pumice entered the Waipuwera stream, which outlets to the Waikato River and Huka Falls, devastating the river margins along the way.

Contact Energy faced prosecution under the Resource Management Act 1991 and following a guilty plea, has opted to enter a restorative justice process. Contact Energy are now working with Ngāti Tūwharetoa to determine a process of restorative justice. An outcome of engagement to date is the commission of a Cultural Impact Assessment by Contact Energy to inform sentencing.

The purpose of this Cultural Impact Assessment is to document Ngāti Tūwharetoa cultural values associated with the lands and natural resources impacted by the Karapiti incident, and the surrounding natural and cultural landscapes. The Report will provide a snapshot of the historical and contemporary values associated with the whenua, wai and ngā taonga katoa which will help inform, contextualise and assess the scope of impacts of the Karapiti Incident within the mana whenua of Ngāti Tūwharetoa and, hopefully, will inform remediation and restoration measures in the area.

Ngāti Tūwharetoa are kaitiaki of our moana and awa. For generations Ngāti Tūwharetoa have held and maintained mana whenua within the Taupō catchment. The intrinsic relationship alongside our ownership as described in part by the 2007 Deed and the Waikato Awa legislation weave the whāriki by which the Tūwharetoa Māori Trust Board are stewards over Taupō Waters and Awa.

Ngāti Tūwharetoa have exercised kaitiakitanga for generations and hold strong to our values and tikanga in the protection and restoration of our lands, waters and resources. The values listed are by no means exhaustive, and it is important to note that this restorative justice process emerges from a western legal approach to redress of a specific incident. It therefore presents a challenge to isolate and assess the extent of affects when we interpret the health of the Taiao as part of an interconnected cultural landscape and occurring across generations.

Ngāti Tūwharetoa express a willingness and an expectation as mana whenua, to contribute to the restorative justice process. The development of a Cultural Impact Assessment that captures a Ngāti Tūwharetoa position on the Karapiti Incident and clearly articulates culturally responsive recommendations is an expression of our kaitiakitanga as well as a commitment to engaging in a process that heals the lands and waters from the harm caused by Contract Energy's actions and inactions in this case.

Purpose of the Cultural Impact Assessment

A Cultural Impact Assessment (CIA) sets out the cultural values, interests and associations with an area, or a resource, of a hapū or iwi. Specifically, an impact assessment would then consider the actual and potential impacts of a proposed activity on these values. Alternatively, a retrospective CIA can specially address the impacts of an unanticipated event or incident of an existing activity. Cultural impact assessments should be regarded as technical advice, much like any other technical report such as ecological or hydrological assessments.

This report performs the functions of a cultural impact assessment in response to the Karapiti Incident. The purpose of this report is to:

- Identify and document Te Hikuwai o Tūwharetoa cultural values associated within the immediate and surrounding area affected by the discharge of sediment, ash and pumice to the Waipuwera steams, Waikato river and Huka Falls;
- Assess the immediate and long-term impact of the incident on Ngāti Tūwharetoa cultural values, knowledges and practices; and
- Provide recommended remediation that support iwi and hapū to restore the physical, spiritual and cultural landscapes of the affected area.

This cultural impact assessment is part of the restorative justice process as an outcome of the Environment Court proceedings. The CIA will inform sentencing which was originally scheduled for August 2020 – however Ngāti Tūwharetoa requested an extension due to the unexpected impacts on time and resources caused by COVID-19.

An assessment of actual and potential effects resulting from the Karapiti Incident are provided along with position statements of the iwi and a set of recommendations and expectations regarding suitable and appropriate next steps for continued engagement and remediation.

The mātauranga of Ngāti Tūwharetoa is informed by our interconnected relationship with the whenua, awa and greater Taiao with the enduring priority of maintaining a healthy and thriving environment. As such, a range of kaupapa (issue) statements are set out that specifically identify the extent of the spiritual, environmental, cultural and health concerns that resulted from the Karapiti Incident against the values identified in the Cultural Values Framework.

How to read this document

The report is divided into five sections:

Wāhanga Tuatahi | Section One: Introduction – establishes the purpose of this report, review of the Karapiti Incident and the subsequent processes that followed. This section also sets out the geographical context and sets out statutory relationships of the Report.

Wāhanga Tuarua | Section Two:

Te Hikuwai o Tūwharetoa cultural associations and values – sets out the unique relationship between Ngāti Tūwharetoa and their wai by providing historical and cultural context that shapes our perspectives as mana whenua over the whenua and wai effected by the Karapiti Incident.

Wāhanga Tuatoru | Section Three:

The Karapiti Incident – summarises the Karapiti Incident and process outcomes to date.

Wāhanga Tuawhā | Section Four:

Cultural Impact Assessment. In this section a specific Cultural Impact Assessment canvasses the short and long term cultural, spiritual, environmental and wellbeing effects that we as Ngāti Tūwharetoa experienced because of the incident. A set of Kaupapa statements are provided that inform the expectations and recommendations.

Wāhanga Tuarima | Section Five:

Summary – A summary of key values, and key points of concern with regards to the Karapiti Incident is provided to conclude the report.

Development of the Cultural Impact Assessment

This Cultural Impact Assessment was developed in collaboration with Ngāti Tūwharetoa. Tūānuku Ltd were contracted by Contact Energy and approved by Ngāti Tūwharetoa to assist with gathering the significant values and practices, and subsequently, the range of impacts the Karapiti Incident has caused for the iwi with a view to providing a robust and culturally informed assessment. A key objective of this process is to develop culturally informed recommendations to, and expectations of, Contact Energy that focus on finding meaningful short- and long-term remediation and restoration solutions.

A literature review of key documents was also carried out including in-depth review of the technical reports commissioned by Contract Energy with a view to understanding the scope of ecological and environmental impacts as determined by the authors of those reports.

The collation of significant values and practices was carried out via kanohi ki te kanohi hui with marae members of Ngāti Tūwharetoa with the support and participation of the Taiao unit of Ngāti Tūwharetoa Māori Trust Board over three hui/wānanga/site visit (from May 2020 – July 2020). These wānanga involved discussions with hapū members, facilitated activities to gather specific values kōrero, and listening to wider discussions by whānau about historical land grievances, unique legal ownership status of the waters of Taupō, increased environmental degradation of water quality and general land use and the associated environmental, social, economic and cultural impacts.

A draft copy of the CIA report was presented to Ngāti Tūwharetoa at a wānanga on the 23rd July 2020. All feedback was considered, and the final report produced for approval by the Ngāti Tūwharetoa Māori Trust Board. The final approved CIA will be submitted to Contact Energy and Tūwharetoa Māori Trust Board as well as the Waikato Regional Council.

Legislative and Policy Framework



Te Tiriti o Waitangi

The hapū of Ngāti Tūwharetoa each had their own independent rangātira but remained mindful of the lineages that united them. The senior rangātira, on behalf of their hapū, installed an ariki (paramount rangātira) towards the end of the eighteenth century.

Herea Te Heuheu Tūkino became the first ariki of Ngāti Tūwharetoa, and established Te Whare o Te Heuheu ('the House of Te Heuheu'). The ariki lineage embodies the mana motuhake of Ngāti Tūwharetoa which endures to this day through each of Te Heuheu's direct descendants. In 1840, Mananui Te Heuheu Tūkino II held this position.

During a visit to Waitangi in 1840, Iwikau, younger brother of Mananui Te Heuheu Tukino II, and Te Korohiko added their marks to the Te Tiriti o Waitangi/the Treaty of Waitangi. The two rangātira acted without the authority of Mananui Te Heuheu, who chastised them upon their return home. Angered, Mananui took a large war party and travelled to meet representatives of the Crown who had brought te Tiriti o Waitangi/the Treaty of Waitangi to Ohinemutu for signing. At a public meeting attended by Crown officials, Mananui renounced Te Tiriti/the Treaty on behalf of the iwi, and publicly rejected the mana and authority of the Queen.

In the 2017 Deed of Settlement the Crown recognised that:

- every generation of Ngāti Tūwharetoa since 1840 has been adversely affected by the Crown's failure to uphold its obligations under te Tiriti o Waitangi/the Treaty of Waitangi and that recognition of Ngāti Tūwharetoa's grievances is long overdue; and
- that Ngāti Tūwharetoa Ariki Mananui Te Heuheu Tukino II refused to sign te Tiriti o Waitangi/the Treaty of Waitangi. But that the Crown acknowledges that the undertakings it made to Māori in te Tiriti o Waitangi/the Treaty of Waitangi apply to Ngāti Tūwharetoa. The Crown hereby recognises the legitimacy of Ngāti Tūwharetoa's grievances and historical claims.

Te Tiriti o Waitangi is central to the foundation of resource management in Aotearoa New Zealand. Te Tiriti guaranteed Māori protection of their lands, waters, and all other taonga/treasures. At the same time, it enabled mana whenua to be able to manage their rohe according to their mātauranga and tikanga and to enact kaitiakitanga in their own unique ways. The mana/authority of Ngāti Tūwharetoa was therefore affirmed in Te Tiriti.

Ngāti Tūwharetoa Deeds

Signed by the Crown and Ngāti Tūwharetoa on the 8th July, 2017, the Ngāti Tūwharetoa Deed of Settlement is the final settlement of all historical Treaty of Waitangi claims of Ngāti Tūwharetoa resulting from acts or omissions by the Crown prior to 21 September 1992 and is made up of a package that includes; an agreed historical account, Crown acknowledgements and apology cultural redress; and financial and commercial redress.

By Deeds with the Crown dated 28 August 1992 and 10 September 2007 the Trust Board is the trustee and legal owner of the bed, water column and air space of Lake Taupō and designated portions of the Waihora, Waihaha, Whanganui, Whareroa, Kuratau, Poutu, Waimarino, Tauranga-Taupō, Tongariro, Waipahi, Waiotaka, Hinemaiaia and Waitahanui Rivers and the Waikato River to the Te Toka a Tia, inclusive of the Huka Falls (the Taupō Waters). For the sake of clarity, Taupō Waters does not include the water over that land.

On 31 May 2010, the Crown and the Trust Board signed a Deed in Relation to Co-Governance and Co-Management Arrangements for the Waikato River (the Deed). The Crown and the Trust Board entered into this Deed on behalf of its beneficiaries within the meaning of that Act, Ngāti Tūwharetoa, and the hapū of Ngāti Tūwharetoa with interests in the Waikato River. The Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 (the Upper Waikato River Act) was enacted to give effect to the Deed.

Ngāti Tūwharetoa Waikato River Action Plan 2016–2021

In 2007, the Crown and Waikato-Tainui reached an Agreement in Principle regarding the outstanding claim to the Waikato River. This agreement included the formation of the Guardians Establishment Committee to develop a Vision and Strategy for the Waikato River. In 2008, the Vision and Strategy for the Waikato River (Te Ture Whaimana o Te Awa o Waikato) was published.

In 2010, Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 and the Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 passed into law as enabling legislation for the Waikato River Authority and established Co-Governance and Co-Management Arrangements for the Waikato River. The Trust Board represents the interests of the Waikato River Hapū of Ngāti Tūwharetoa under that legislation.

The Vision and Strategy (Te Ture Whaimana) is the primary direction setting document for the Waikato River. The overarching purpose of the Vision and Strategy *“is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come.”* (Ngāti Tūwharetoa Waikato River Action Plan 2016).

Ngā Kaihautū o te Awa o Waikato

The Waikato River Marae Working Group (MWG) was formed in December 2015 through a process facilitated by the Tūwharetoa Māori Trust Board. The MWG engages directly with the Trust Board to consider matters relating to the protection and restoration of Te Awa o Waikato and its natural ecosystems.

The MWG is comprised of two Trust Board members and one representative from each of the following marae: Waipāhīhī Marae, Te Kapa o Te Rangiita ki Ōruanui, Nukuhau Pā, Mōkai Marae, Tutetawhā Marae, Te Rangiita Marae, Maroanui Marae, Pākira Marae Waitahanui.

In 2017 the group was named Ngā Kaihautū o Te Awa o Waikato.

Resource Management Act 1991

The purpose of the Resource Management Act 1991 (RMA) is to promote the sustainable management of natural and physical resources. The sections of the RMA that are particularly relevant to this Assessment are sections 5, 6, 7 and 8.

Section 5 of the RMA sets out the purpose of the Act, which is sustainable management of natural and physical resources. Sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while –

- a. sustaining the potential of natural and physical resources (excluding minerals) to meet the
- b. reasonably foreseeable needs of future generations; and
- c. safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- d. avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Notwithstanding all parts of section 5, resource management in a manner that enables cultural wellbeing, while safeguarding the life supporting capacity of water is key to achieving the purpose of the RMA.

Section 6(e) of the RMA recognises the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga as a matter of national importance. Accordingly, all persons exercising functions and powers under the Act in relation to managing the use, development and protection of natural and physical resources shall recognise and provide for these relationships.

Section 7(a) of the RMA states that all persons exercising powers and functions under the RMA shall have regard to kaitiakitanga. Kaitiakitanga is defined in the RMA as the *“exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship”*.

Section 8 of the RMA states that in achieving the purpose of the RMA, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall consider the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). The RMA further affirms both the guarantee set out in Article 2 of the Treaty, as well as the rights and responsibilities of the tangata whenua.

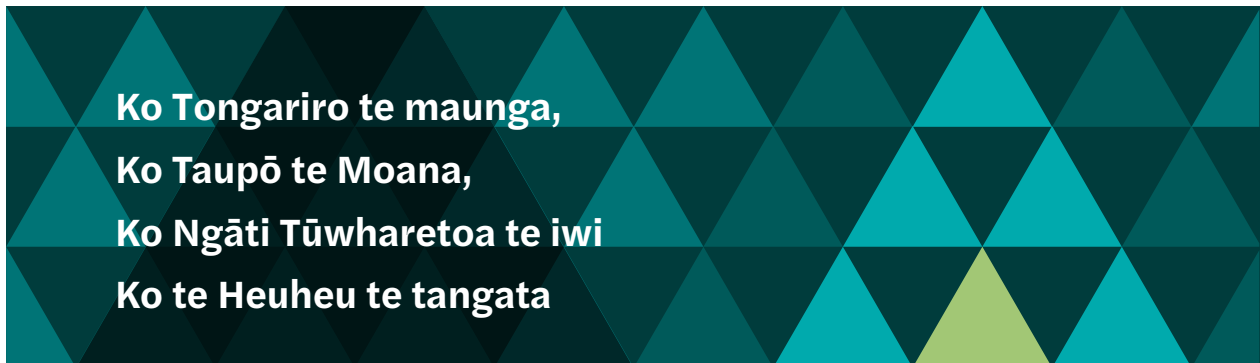
Other RMA provisions that confirm tangata whenua as kaitiaki include ss 61, 66 and 74, with relevant Local Authorities required to consider iwi management plans (or other iwi planning documents) when preparing policies and plans. Section 33 enables local authorities to transfer powers of authority to iwi authorities thus recognising the status of the tangata whenua as both kaitiaki and a Crown partner. Further, recently confirmed Mana Whakahono ā Rohe allow iwi/hapū and local authorities to work collaboratively in a way that they see fit within the RMA framework. Mana Whakahono a Rohe is a new tool designed to assist tangata whenua and local authorities to discuss, agree and record how they will work together under the Resource Management Act (RMA). This includes agreeing how tangata whenua will be involved in decision making processes. Agreements made using this tool are referred to as a Mana Whakahono.

Restorative Justice Process

The Resource Management Act 1991 contains provisions to enable local authorities to lay criminal charges against anyone who contravenes the rules and regulations within the Act. Governed by the Criminal Procedure Act 2011, there are three levels of offences which reflect the severity of the offence and dictate the resulting penalty.

Restorative Justice enables a process whereby the offender can redress the harm experienced by the victim. Upon the submission of a guilty plea, and if agreeable by all parties, a restorative justice conference is held prior to sentencing. The purpose of the conference is to confirm a summary of the incident, outline the scope of concerns expressed by participants in relation to the offence and to develop an agreed plan or outcome that provides for reparation or redress for the harm caused by the offence.

Wāhanga Tuarua: Ngāti Tūwharetoa



Ngāti Tūwharetoa are the descendants of Ngatoroirangi, Tia and other Tūpuna who have occupied the Taupō region since the arrival of the Te Arawa waka.

Ngāti Tūwharetoa are linked by whakapapa to our lands and taonga. This connection establishes our mana whenua, kaitiakitanga, and rangātiratanga including our right to establish and maintain a meaningful and sustainable relationships between whānau, Hapū, marae and our taonga tuku iho¹.

For Ngāti Tūwharetoa, our role in the Central North Island forms part of our ancestor, our earth mother Papatūānuku. The universe and atmosphere above, and around, us is our sky father, Ranginui. The geographical pinnacle of Papatūānuku, within our rohe is our maunga (mountains) including our esteemed ancestor, Tongariro. To the north of Tongariro lies our inland seas, Taupō and Rotoaira. Our mauri flows from our maunga and to the hinterlands via the Waikato, Whanganui and Rangitaiki. They link us directly with our neighbouring iwi.

This tangible natural water flow is necessary to nurture every form of life it encounters during its journey. It is the intangible interconnecting web that is the lifeblood of our whakapapa and enable the survival of our wellbeing and identity as iwi, Hapū, marae, landowners and whānau. This way

of looking at our fresh water highlights a truth we all acknowledge. Water us our lifeblood. Water is necessary for life. Water is us and we are the water².

We have continued to exercise our customary rights and interests over all the waterways, waterbodies, and tributaries in our rohe. Upholding our responsibilities as manawhenua and kaitiaki requires us to remain present, active, and visible in all discussions concerning wai management to ensure Te Mana o te Wai is preserved, restored, and protected.

The Waikato River has provided physical and spiritual sustenance to Iwi, Hapū & whānau living along its catchment. It is a source of mahinga kai, transport, healing, and spiritual nourishment. This is captured in the synonymous whakatauki; 'Waikato Taniwha rau, he piko he taniwha, he piko he taniwha' which is a reference to the many bends of the river and furthermore a metaphor to the many chiefs who sit at each bend.

¹ Lake Rotoaira and Lake Taupō Forest Trusts and the Tūwharetoa Maori Trust Board (2011) *The Stewardship of Fresh Water – A Tūwharetoa Discussion Document*.

² Tūwharetoa Maori Trust Board (2012) *Ngāti Tūwharetoa relationship with our ancestral waters*.

Te Hikuwai o Tūwharetoa

The northern Hapū and Marae of Tūwharetoa³ are referred to as ‘Te Hikuwai o Tūwharetoa’ referencing them as kaitiaki of the head waters of Tūwharetoa. For Te Hikuwai o Tūwharetoa Hapū and Marae who sit at the first bend of the Waikato river, the river and all its tributaries are taonga tuku iho whose waters are personified to the life-giving properties of women. This significance is represented in the Te Hikuwai o Tūwharetoa whakataukī ‘kei tuwhera tonu te awa i Nukuhau’ which means ‘so long as the Waikato River flows from Nukuhau, so will the chieftainesses of Ngāti Tūwharetoa continue to flow from the fountain’.

As kaitiaki of the Waikato River Tūwharetoa have an intrinsic duty to ensure the Mauri, physical and cultural and spiritual health of the Waikato River, inclusive of whenua and water resources are maintained, protected, and enhanced.

“Ko Waikato te awa, he awa tupuna, he ara wairua”

The Waikato is our river, it is an ancestor and pathway of the spirit.

Tūwharetoa Māori Trust Board are the legal owners of Taupō waters. The term Taupō Waters refers to property including the bed, water column and air space of Lake Taupō and the Waihora, Waihaha, Whanganui, Whareroa, Kuratau, Poutu, Waimarino, Tauranga-Taupō, Tongariro, Waipehi, Waiotaka, Hinemaiaia and Waitahanui Rivers and the Waikato River, from the outlet of Lake Taupō to a place known as Te Toka a Tia, downstream and inclusive of Huka Falls.

Ngāti Tūwharetoa are in a unique position holding legal ownership of most of the waterways and waterbodies as well as retaining ownership of most of the private land within the associated catchments.

The Trust Board acts on behalf of the Ngā Hapū me ngā marae o te Hikuwai o Tūwharetoa and is charged with ensuring the mauri of our Taupō Waters is healthy and in the best state possible as it travels downstream to our other river iwi.

Ngāti Tūwharetoa consider ourselves the traditional kaitiaki of the important lakes and rivers of Te Puku o Te Ika (the belly of the fish, i.e. the central North Island). The lakes and waterways are a source of tribal identity and mana, of physical sustenance and spiritual restoration. The health and wellbeing of lakes and waterways reflect and nourish the health and wellbeing of the people. Evidence in the Waitangi Tribunal recorded tribal feeling about Lake Taupō (Taupō nui a Tia) as follows:

My Inland Sea, my medicinal waters offered as a gift by My Mountain; the foam and spray maker of the wake of Te Reporepo, the emblem canoe of the tribe; the womb of my existence as the cherishing waters are to the embryo; the seat of my emotions that ripple and wave in the ceaseless lapping tides of survival; the mirror of my soul upon which I reflect; my water pool that carves the face of the earth; that renews me, restores me, rebirths me; my lake that represents the pool of life, and I but one drop; enjoined forever.⁴

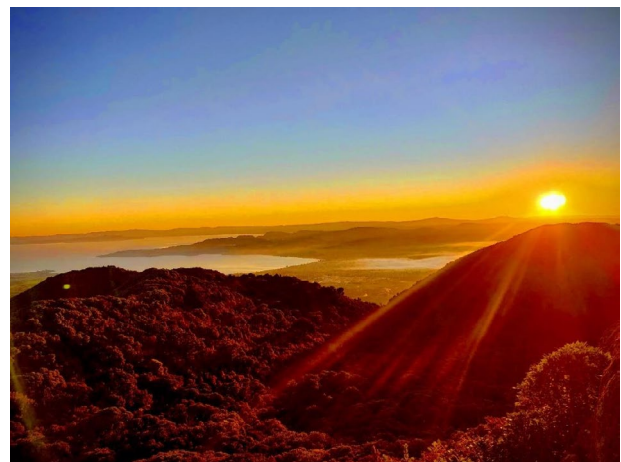


Figure 2: Mt Tauhara Sunset: Source Tredegar Hall 2020

³ Te Hikuwai o Tūwharetoa also referenced in this document as Ngā Hapū o te Hikuwai o Tūwharetoa.

⁴ Ngāti Tūwharetoa Deed of Settlement 2017.

Wāhanga Tuatoru – The Karapiti Incident



This section will outline the events that unfolded at the Karapiti site that led to the uncontrolled discharge of geothermal fluid and sediment directly into the Waipuwera river, then to the Taupō Lake and Huka Falls on the 19th February 2019. The incident has been referred to as the “Karapiti Incident” in court proceeding to date and so for consistency, reference will remain the same throughout this document.

Contact Energy – The Karapiti Incident

Contact Energy is the second largest electricity generator in New Zealand with eleven owned and operated power stations throughout the country. Contact’s energy portfolio consists of hydro, natural gas and geothermal (80–85% of electricity is provided through geothermal and hydro stations with five of geothermal stations located north of Taupō). This CIA refers specifically to the events occurred because of a technical malfunction, and inaction by Contact Energy, at the Karapiti storage pond for Wairakei Power Station located at northwest of Wairakei settlement in the Taupō District.

The Wairakei block covers an area of 4,200 acres; its boundaries are the Oruanui block on the west, Waikato River on the east, the hot stream Waipuwera on the south, and the hot stream Wairakei on the north.

The “Wairakei Geothermal Field is New Zealand’s oldest and largest (by electrical generation). The field covers between 20 and 25Km² and lies 8 km north of Taupō along State Highway 1” (NZGA 2020). The Wairakei Field is situated within volcanic strata of the Taupō Volcanic Zone and provides the geothermal resource for 4 power stations, Te Mihi, Poihipi, Wairakei and Te Huka.

Located north of Taupō, the Waipuwera stream lies within the Atiamuri Ecological District. It originates about 1.5 km west of the Karapiti (Craters of the Moon) geothermal area and flows for approximately 5 km before entering the Waikato River approximately 1 km upstream of the Huka Falls.

On 19th February 2019, an incident occurred at Wairakei Geothermal Power Station. A technical malfunction of the reinjection system at Well WK407 caused geothermal fluid to be redirected to a storage pond. The pond is located on the Karapiti Land Block next to a gully on the Waipuwera river. The rate of discharge into the pond continued undetected for six days enabling geothermal fluid to collect which resulted in a failure of the pond’s ability to cope with the excess volumes.

The northern side of the pond eroded due to saturation and eventual slumping into the Waipuwera Valley. This caused an additional slip depositing further sediment into the stream and Waikato river. It is estimated that approximately 44,000m³ of sediment, ash and pumice entered the Waipuwera stream, which outlets to the Waikato River and Huka Falls, devastating the river margins along the way.

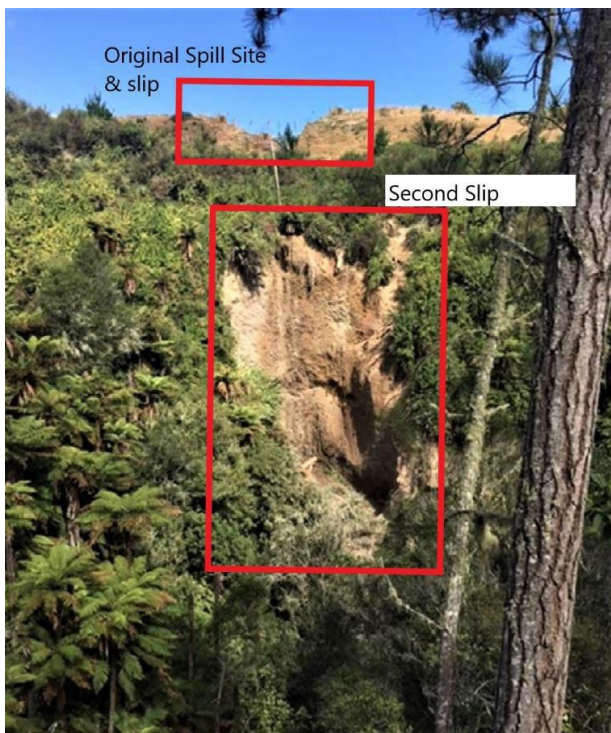


Figure 3: Spill site and slip. Source: Contact Energy

The incident caused immediate discolouration of the receiving water bodies and created significant concern among river iwi/hapū and the wider community. Notification of the incident was made by Ngāti Tūwharetoa to the Waikato Regional Council and a pollution response team was deployed to investigate. As part of this process water consent holders were notified as well as media releases to the wider public advising water conservation as Council shut off immediate water supplies until confirmation of quality was ascertained by the Council’s water monitoring teams. Taupō District Council and Tūwharetoa Māori Trust Board were also notified.

Water quality sampling was conducted by Contact Energy and Waikato Regional Council after the event to determine the impact on water quality.

Contact Energy initiated an immediate response plan which included the installation of a large sediment trap to capture any further discharge from the pond.

The incident resulted in prosecution of Contact Energy under the Resource Management Act by the Waikato Regional Council. At the court sitting on October 16th, 2019, Contact Energy entered a guilty plea to breaching the Resource Management Act and opted to enter a restorative justice process. On the 5th March 2020, a Restorative Justice Conference with Waikato District Council, Contact Energy and Tūwharetoa Māori Trust Board was held to determine an agreed process of restorative justice.

As part of immediate restoration works, Ngā Kaihautu o te awa o Waikato and Tūwharetoa Māori Trust Board developed the “*Waipuwera Restoration Project*” with the first of the restoration planting completed on the 3rd September 2019 by the Trust Board, Ngā Kaihautu o te awa o Waikato and Te Kura Kaupapa Māori o Whakarewa i te reo ki Tūwharetoa. More than 150 plants were planted on the lower banks of the Waipuwera stream culvert on Huka Falls Road.



Figure 4: Waipuwera planting day – September 2019. Source: TMTB

Another key outcome of the restorative justice proceedings to date is that Contact Energy will commission a cultural impact assessment to inform the sentencing. A court sentencing extension has been granted for 30 October 2020.

Process outcomes to date

The following reports have been developed in direct response to the Karapiti Incident and provide contextual information to inform and assist with the development of this Cultural Impact Assessment.

Cultural Landscape – Initial Aspirations

In response to the Karapiti Incident, Ngāti Tūwharetoa and Ngā Kaihautu o te Awa o Waikato developed a report identifying ongoing issues associated with the Waikato River (including Te Waipuwera):

1. As kaitiaki, our relationship with the river has been eroded.
2. The Mauri of the river is degraded.
3. Water quality has declined to a point where it may not be drinkable or swimmable.
4. Our river is a taonga and is no longer a source of plentiful food.
5. The river is not managed sustainably.

The report also outlines high level objectives they seek to achieve as kaitiaki of the Waikato River which focus on the restoration and protection of their economic, social, cultural, and spiritual relationship with the Waikato River; the protection and enhancement of significant sites, flora and fauna, fisheries and restoration of water quality to enable food gathering and cultural, recreation and sporting activities.

The report also specifically addresses the importance of Ngā Kaihautu o te Awa o Waikato, as kaitiaki, to restoration and enhancement of the environment to an improved state. The following list has provided the basis for the development of recommendations for this Cultural Impact Assessment:

- Remediate the damage caused by the Contact energy spill and years of neglect the stream and its catchment has endured.
- Rehabilitate and enhance the land along the banks of the Waipuwera Stream where appropriate promoting native revegetation through its full length.
- Rehabilitate the Waipuwera Stream water so that the water quality is in better quality than what it was before the spill event.

- Re-establish and install the cultural connection and stories that tangata whenua have with the stream and catchment area.

Waipuwera Restoration Project Proposal – April 2019

Ngā Kaihautu o te Awa o Waikato developed a Restoration Project proposal to remediate *“the damage caused by the Contact energy spill and years of neglect the stream has endured. This is to be a total catchment approach assessing the land use of adjacent land blocks, weed removal, restorative planting access and marking of cultural sites. This will also involve working with adjacent land-owners and assisting them with how to better care for the stream”* (Ngāti Tūwharetoa and Ngā Kaihautu o te Awa o Waikato 2019 2).

The staged project includes a number of similar activities per stage such as; weed removal, restorative planting, improving cultural visibility through pou, signage, identification of possible mara establishment and gardening and measures taken to protect and/or promote the areas of cultural significance, mara, urupā, wāhi tapu and wāhi tupuna will all need their own type of protection and protocols.

The report also recommends engagement with neighbouring landowners to improve understanding of land use activities and the impacts on the river and identify mitigation options.

Waipuwera Stream Spill Data Analysis and Interpretation

Completed by 4Sight Consulting, the purpose of this report was to provide analysis and interpretation of the water quality sampling data collected immediately after the Karapiti Incident by Waikato Regional Council and Contact Energy. The objectives of the report were to:

1. Assess the potential impact the event had on water quality of the Waipuwera Stream and Waikato River.
2. Estimate the quantity of sediment that likely discharged into the Waikato River and the distance downstream where environmental effects may have been possible.
3. Identify potential information gaps and provide recommendations on any further work that may inform understanding of any ongoing effects from the fluid and sediment discharge.

Contact Energy collected water quality samples from five different locations including the Waipuwera Stream by Huka Falls Road on the 19–22 February and once again on 1st March 2019. A range of water quality parameters were used to **“characterise geothermal waters, including a broad range of metals and ionic species”** (4Sight 2019 2).

Waikato Regional Council also collected daily water samples at Huka Jet Jetty daily from 19 February – 26 February and from Ohaaki Bridge between 19–26 February 2019. A **“broad suite of water quality parameters was measured in the sample taken from each location on 19 February; however, the remaining samples were only analysed for total suspended solids”** (4Sight 2019 2).

The report also drew upon some conclusions made by a report completed by Contract Energy entitled **“Chemical review of the Karapiti Landslide”** completed by A. Dean (2019). Key findings revealed that due to higher levels of chloride and silica, the Waipuwera Stream was likely to be **“chemically affected for a period of up to 10 days after the event”**. However, the geothermal fluid within in the Waikato River was not dissimilar to the consented discharge levels from the Wairakei Power Station. And that the **“contaminants would have been sufficiently diluted to be below toxic levels and have negligible effects (excluding from sediment) on ecology in the Waikato River”**.

In terms of the sedimentation that entered the Waipuwera stream, key findings from the 4Sight report include:

- Elevated total suspended solids (TSS) levels in the Waipuwera Stream for at least 10 day following the event with estimations indicating that background levels would have returned within two to three weeks after the event.
- High TSS levels were detected for at least three days after the event were likely to have greatly reduced the water clarity, limited the amount of available light for aquatic plants and photosynthetic organisms in the stream, and potentially smothered the stream bed, resulting in adverse effects on the plants and animals in the stream at the time.
- Water samples for TSS analysis were only collected over a narrow (low) range of turbidity values. This limits the accuracy of estimating TSS concentrations from turbidity measurements that exceed the highest calibrated value (1.65 NTU).
- Based on monitoring data from Ohaaki Bridge, between 135 and 398 tonnes of sediment is estimated to have been discharged into the Waikato River following the event on 19 February and subsequent discharges throughout February. This is equivalent to about 4–11 days of the average daily suspended sediment loading in the Waikato River at Ohaaki Bridge deposited over a period of less than 25 hours.
- An approximate estimate of the total sediment load discharged by the event is from 5–15 times the average daily sediment load (approximately 175–525 tonnes of sediment).
- Due to the high flow speed of the Waikato River (typically >75 cumecs) and the ability for dilution, it is unlikely that the volume of sediment discharged to the Waikato River resulted in adverse environmental effects, other than the temporary discolouration of the water.
- Elevated levels of turbidity (>1 NTU) resulting from the spill and subsequent resuspensions of the sediment were likely observed as far downstream as Lake Ohakuri, approximately 60 km downstream from the Waipuwera Stream mouth
- Turbidity levels in the Waikato River were elevated for approximately 24 hours after the initial event. Subsequent pulses of turbidity, likely resulting from the resuspension of slip material, were detected for less than one hour on each occasion.
- The Waikato River has a large capacity to mix and dilute discharges, therefore, it is unlikely that the event caused adverse environmental effects to the Waikato River due to its chemical composition.
- Sediment discharged into the Waikato River appeared to have been flushed out within 24 hours of the initial event and subsequent discharges, within an hour.
- While the discharge was unlikely to have substantially impacted the ecological health of the Waikato River, there was significant discolouration of the river and Huka Falls, which is noted to have resulted in wider cultural impacts on the overall mauri of the river.

Waipuerawera Stream Slip – Ecological Impact Assessment

4Sight Ltd also conducted an Ecological Impact Assessment. The purpose of this report was to *“assess the potential adverse effects that may have been caused by the slip event on ecological instream habitat and values”* (4Sight Ltd Oct 2019 1). The assessment is also intended to inform high level recommendations for the restoration and remediation of ecological values.

The Taupō District Plan includes the site as a Significant Natural Area, and it is also a DOC conservation area. The report states that the site has high ecological value based on the presence of ‘At Risk’ species (koaro).

4Sight concluded that the overall:

“effects of the slip onto the stream system are assessed to have resulted in a low magnitude of effect based on the effect of a minor shift away from baseline conditions, and the change from the alteration or loss being discernible without the change of the underlying character of the stream system...the remaining stream system is highly mobile nature and naturally poor in habitat diversity for macroinvertebrate and fish communities, and that conditions are not more degraded, and in fact are slightly less degraded, in the areas downstream of the slip event compared to the upstream ‘baseline’ site” (4Sight Oct 2019 17).

Based on the short-term ecological impacts and the cultural and spiritual impacts identified by Ngāti Tūwharetoa, the report recommends the development of a high-level restoration programme of the Waipuerawera stream system and the wider gully system. The report notes the programmes developed by Wildlands Consultants (this programme is discussed in the next section). 4Sight states that a restoration programmes will need to consider the terrain and the range of vegetation types present at the site:

We recommend that any gully restoration should take place on a pragmatic step-by-step basis removing blackberry and other weedy species in stages to allow slow recovery of the stream system while minimising adverse effects on the channel and highly unstable gully slopes (4Sight Oct 2019 16).

In addition, the report notes the opportunity for a collaborative process between Contact Energy and Ngāti Tūwharetoa to develop an ecological and cultural monitoring programme in which this report could offer baseline information.

Restoration Plan for a slip in the Waipuerawera Stream Catchment, Taupō

Wildland were commissioned by Contract Energy to *“provide an ecologically appropriate and sustainable plan for the stabilisation of land at a slip site and eroded scarp, located between a collection pond at the Wairakei Power Station and the eastern margin of Waipuerawera Stream.”* (Wildlands 2019 1).

The report recommends two primary sites for remedial action: the slip site and adjacent hillslopes and the scarp on the immediate margins of the Waipuerawera Stream. The plan outlines recommendations for site preparation and lists recommended indigenous plant species to assist in the stabilisation of the eroded scarp through the establishment of groundcover vegetation. Wildlands also suggests supportive actions to promote growth such as timing of planting and plant maintenance. The report also recommends regular ecological monitoring to assess the progress and success of the restoration activities.

Waipuerawera Restoration Works – Contact Energy 2020

Contact Energy have developed a draft ecological restoration plan that has been agreed in principle between the environmental representatives of Contact and Tūwharetoa Māori Trust Board. Contact acknowledges that at the time of writing the Restoration Proposal, Ngāti Tūwharetoa were in the process of developing a CIA to address the impacts of the Karapiti Incident.

The objectives of the Waipuerawera restoration works are:

- remediate the physical and environmental damage caused by the WK407 spill and land slip
- commence and support the wider rehabilitation of the stream, its margins and vulnerable or degraded parts of the catchment so that the mauri and water quality is better than prior to the spill and land slip
- For Contact to help Ngāti Tūwharetoa re-establish the cultural connections and stories that tāngata whenua have with the stream and catchment.

In partnership with Ngāti Tūwharetoa, Contact will initiate works to remediate and rehabilitate areas below the slip site that were impacted by the WK407 event, including:

- Arranging access and permissions from third parties.
- Site preparation and weed control at various sites indigenous planting – e.g. manuka planting at the slip site.
- Ongoing maintenance – release plants from competition weed species and grasses.
- Terrestrial pest animal control to protect indigenous flora and fauna.

In collaboration with other landowners and interested parties, Contact will lead the rehabilitation of ecologically and culturally important areas above the slip site including:

- Wilding pine control at the Geothermal site.
- site prep/weed control at the wetland site (rohekōreporepo) – planting in winter.

Contact also suggest potential collaborative opportunities for consideration by Te Hikuwai o Tūwharetoa such as Hapū/iwi, community and Contact planting day, strategic funding applications, terrestrial pest control programme and story board locations catchment wide.

In response to Contact’s proposed restoration plan, Ngāti Tūwharetoa note their support of the plan as an immediate response to the spill, however there is an expectation that Contact will commit to a further and more comprehensive integrated catchment restoration which would see other key areas not identified in this plan, included. This will require on-going engagement with Ngāti Tūwharetoa.

Further recommendations included refining the proposed plant species list to align better with species that naturally occur and are native to the area, including specific consideration for Rongoa and mahinga kai species such as Horopito, Kawaka, Kumarahou, Totara and Tutu. In addition, planting should be locally from Taupō nurseries such as Tuaropaki or East Taupō Land Trust nurseries. As already mentioned further engagements opportunities for Wānanga with Te Hikuwai o Tūwharetoa around the design and details of the restorative actions are expected.

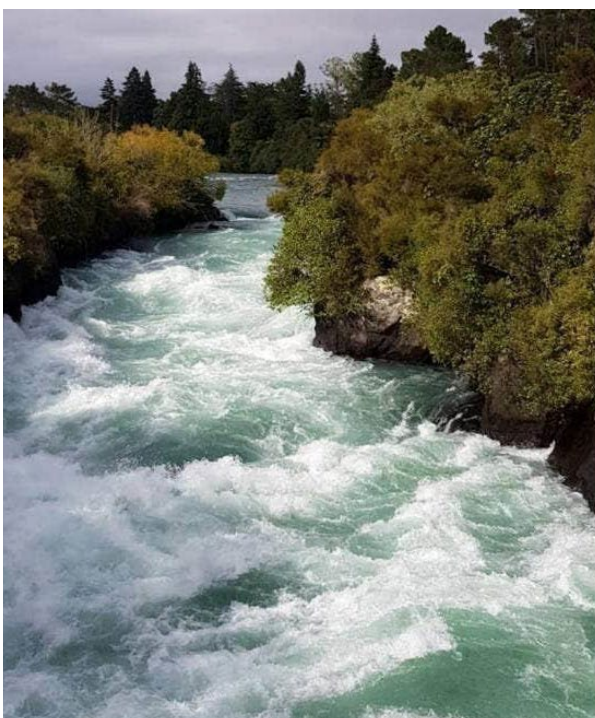


Figure 5: Waikato River before and after the slip – Source: Stuff 2019

Wāhanga Tuawhā

Cultural Impact Assessment



In this section, cultural values of Ngāti Tūwharetoa are presented in a values framework, these values have informed the development of kaupapa statements relating to each group of values (see figure 2).

Figure 3 sets out some of the significant cultural values identified by Ngāti Tūwharetoa. These values capture the holistic and interconnected view of our iwi with our lands and natural taonga and the importance of these to our identity as mana whenua. The impact of the Karapiti Incident has been assessed against these values. Canvassing the scope of impacts in a values-centric way, allowed for a more focused process of identifying achievable and practical restoration opportunities.

Ngāti Tūwharetoa expect Contact to consider these recommendations and the cultural context that informs them, as part of a meaningful and purposeful commitment to restorative justice.

Whilst these by no means form the entirety of our values, they were raised by our whānau as significant to considerations of current impacts and future aspirations for the affected area.

Ngā Uara o Ngāti Tūwharetoa

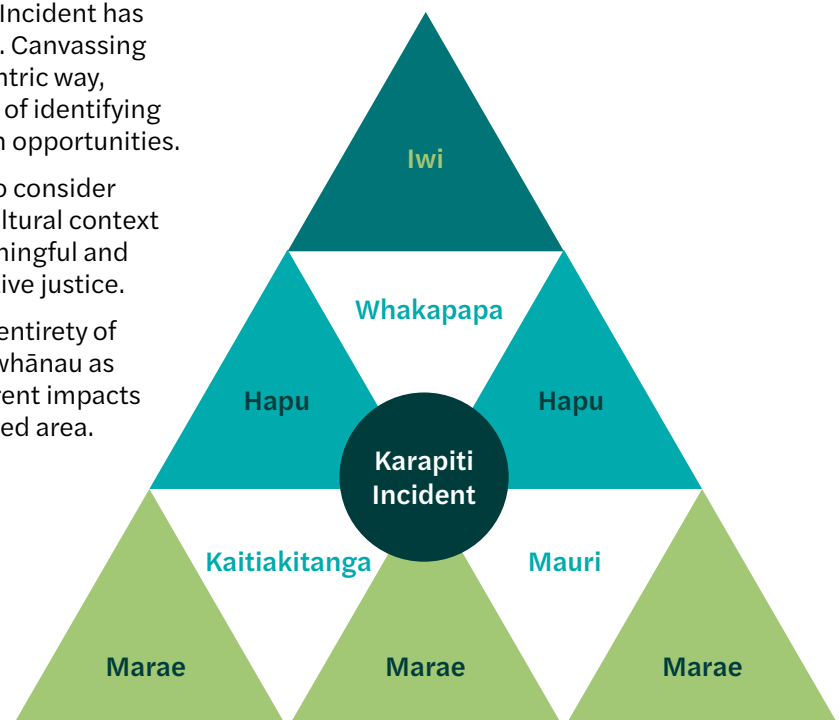


Figure 6: Ngā Uara o Ngāti Tūwharetoa

Whakapapa

The importance of whakapapa and intergenerational responsibility is a key cultural value for Ngāti Tūwharetoa. We have an enduring accountability to our tupuna to look after our taonga tuku iho and to ensure that this ethic is passed on from us to our mokopuna and instilled in generations to come. However, when there is an incident or event that threatens the mauri and mana of our taonga, we carry the burden of the impacts as kaitiaki as the memory rolls through the generations.

“Ko Tūwharetoa te iwi, ko Tūwharetoa te hapū”–

This statement, once spoken by our kaumatua, is a timely reminder of the permanence and the resilience of our whakapapa and its centrality in defining our identity and our unity as Ngāti Tūwharetoa. When our kaumatua spoke of hapū, they were intimately aware of the existence of whānau and hapū whakapapa that established unique, but overlapping lines of history, that are boundless through time, geography, and space.

Our whakapapa is the foundation of our identity; it is the foundation of who we are. It is the source of our whakakotahitanga because it combines the collective strength of all our hapū of Ngāti Tūwharetoa through bonds that are real, emphatic, and established by our collective commitment to our Tūwharetoatanga.⁵

Kei te pumau tonu te ha o Tūwharetoa, kei te pumau tonu te Ahi Tamou Kei te pumau tonu Te Ahi Tamou, kei te pumau tonu te hapū o Tūwharetoa. As long as there is breath left in Ngāti Tūwharetoa so too will burn our sacred flame of occupation. As long as our sacred flame burns so too will there be breath in Ngāti Tūwharetoa.

Ngāti Tūwharetoa maintain that this unity is our strength, enabling us to protect our people and taonga. Ngāti Tūwharetoa thrive when hapū and Whānau are strong and united by whakapapa and tikanga.

The restorative justice process is a legal process that responds to an isolated offence and has the overarching goal of seeking solutions for redress for the harm caused to victims. However, for Ngāti Tūwharetoa, kōrero about the cultural impact of this incident runs much deeper. The incident does not sit in a silo or is easily separated from deeper historical grievances.

This incident, then, must be considered amongst a history of many that have been enacted on and against Ngāti Tūwharetoa and their lands and waters since 1840. These are well documented in the 2017 Deed of Settlement. It is part of a much larger and enduring narratives about our experiences of historical land acquisition, degradation of land, waters and taonga of Ngāti Tūwharetoa from land use and the rights and responsibilities of the iwi as kaitiaki.

The very presence of geothermal energy in the area that Contact utilise and profit from originates from the whakapapa of Tūwharetoa ancestor Ngātoroirangi.

As Ngātoroirangi ascended Tongariro, he was overcome by the cold south wind. Close to death, he called out to his sisters to send the sacred fires of Hawaiki. Thus the geothermal energy was sent mai Hawaiki ki te tihi o nga pae maunga, saving Ngātoroirangi and establishing the legacy of Te Ahi Tamou that has sustained his descendants over many generations.⁶

Ngāti Tūwharetoa me ona hapū consider they are the kaitiaki of their geothermal taonga called forth by Ngātoroirangi. The geothermal resources were used to provide warmth for early crops, for cooking, heating homes, and bathing, and were the source of minerals such as kokowai (ochre). Puia, waiariki and ngawha were rare and important, prized across te iwi Māori and taonga of Ngāti Tūwharetoa me ona hapū. Through their ahi ka, Ngāti Tūwharetoa have maintained their customary rights to the geothermal resources of their rohe.

Land confiscations, sales and restriction of access through various acts have impacted the relationships of Tūwharetoa with their taonga. Further, the enactment of the Geothermal Energy Act 1953 provided for the Crown to have the sole right to tap and use geothermal energy. Ngāti Tūwharetoa were not consulted about this. Ngāti Tūwharetoa harbour a strong sense of grievance over this Crown action. They consider the Crown has deprived them of a treasured taonga. Despite the loss of lands containing geothermal surface features the geothermal resource was, and still is, central to the lifestyle and identity of Ngāti Tūwharetoa.

It is within this context, then, that the Karapiti Incident must be viewed.

⁵ Ngāti Tūwharetoa Deed of Settlement 2017.

⁶ Ibid.

“The hapū of Ngāti Tūwharetoa assert their custodial and customary right of tino rangatiratanga over their respective taonga, and Tūwharetoa collectively, will sustain and protect the life force of all tribal and inherited taonga” (TEIMP 2003 6).

Kaitiakitanga

“As kaitiaki, ngā hapū o Ngāti Tūwharetoa have an intrinsic duty to ensure that the mauri and therefore the physical and spiritual health of the environment is maintained, protected and enhanced. The exercise of kaitiakitanga is central to Tūwharetoa resource management” (Ngāti Tūwharetoa Environmental Iwi Management Plan 2003).

Ngāti Tūwharetoa are the kaitiaki of the waters impacted by this incident, and as such, are responsible for safeguarding the river for future generations. We also have obligations to other iwi and hapū downstream and we take these responsibilities seriously.

In this situation, ‘recognising and providing for’ must mean restoring an active and living relationship between the people and the river. Indicators of an active and living relationship could be developed by Ngāti Tūwharetoa in a river restoration plan or water and ecological monitoring programme but could include members using the river to swim, collect kai and carry out cultural protocol’s and ceremonies.

Te Waipuna Ariki – water

“Ngāti Tūwharetoa assert and exercise rangatiratanga and kaitiakitanga over waters within the Tūwharetoa rohe” (Tūwharetoa Environmental Iwi Plan 2005 22).

For Ngāti Tūwharetoa, water comes from the sacred pool of our ancestor, Io. Tāne entrusted the guardianship of all the waterways to Tangaroa while Tāwhirimātea was assigned the guardianship over the atmospheric forms of water and the weather. These two guardians hold the mauri, the essential life forces, of these forms of water. For Ngāti Tūwharetoa, our rohe of the Central North Island forms part of our ancestor, our earth mother Papatūānuku. The universe and atmosphere above and around us is our sky father, Ranginui. The geographical pinnacle of Papatūānuku, within our rohe, is our maunga (mountains) including our esteemed ancestor, Tongariro. To the north of

Tongariro lies our inland seas, Taupō and Rotoaira. Our mauri flows from our maunga through our ancestral awa (surface and underground streams and rivers) to our moana and to the hinterlands via the Waikato, Whanganui and Rangitaiki. They link us directly with our neighbouring iwi.

This tangible natural water flow is necessary to nurture every form of life it encounters during its journey. It is the intangible interconnecting web that is the lifeblood of our whakapapa and enables the survival of our wellbeing and identity as iwi, hapū, marae, landowners and whānau. This way of looking at our fresh water highlights a truth we would all acknowledge *water is our lifeblood. Water is necessary for life. Water is us and we are water.*

Ngāti Tūwharetoa has mana and rangātiratanga over all waterways and water bodies within our rohe. We have always exercised customary rights over all Wai Māori within our rohe and we continue to exercise those rights. We maintain that these customary rights of Ngāti Tūwharetoa have always existed separate to any other right recognised by the Crown. Ngāti Tūwharetoa’s ownership rights in Wai Māori are unique in that we have legal ownership rights in respect of most of the waterways within our rohe.

Considered the lifeblood that flows and sustains all life forms, the preservation of Te Mana o Te Wai is vital in the continuance of the cyclical processes of the water such as provision, sustenance and restoration. Upholding our responsibilities as mana whenua and kaitiaki requires us to remain present, active and visible in all discussions concerning wai

The ability for us to express kaitiakitanga over our whenua, wai, taonga and wider taiao according to mātauranga, tikanga and kawa inherited from our tupuna is a fundamental value of Ngāti Tūwharetoa. It is a strong binding thread that weaves through our expressions of identity as mana whenua, our tūrangawaewae and sense of connectedness to our ancestral lands, hapū and Whānau.

The unique natural landscape and features within our ancestral lands has provided Te Hikuwai o Tūwharetoa with access and availability to several different, and highly valued, natural resources that has sustained us as an iwi physically and spiritually. Our ability to thrive, sustain ourselves and manaaki others is intimately intertwined with our enduring relationship to the whenua and it is this responsibility to respect, preserve and protect the taonga tuku iho that guides us in our role as kaitiaki.

The Waipuerawera stream is an important cultural asset for Tūwharetoa. Te Waipuerawera stream is a living entity, it has its own mauri and wairua and is one of the many key tributaries leading into the Waikato River. Traditionally it was a significant source of kai, historical boundaries, battle sites, urupā in the upper reaches and transport connectivity from the canoe landing areas in Hipapatua (Reid's farm). However, due to land surveys, confiscations and subsequent sale, the connection that the river Hapū of Tūwharetoa had with the stream has been diminished along with its holistic health due to neglect, restriction of access and adjacent land use activities. The stream is currently overgrown in parts with black berry, wilding pines and willow with vivid sites of the deposited spill sediment remaining.

The stream acted as a natural boundary between the Rangātira and Wairakei land blocks of which the Te Hikuwai o Tūwharetoa once lived and continue to maintain a cultural and spiritual ahi kā relationship to this area. The name Waipuerawera refers to the geothermal properties of the stream which provided an ideal environment for cultivations to harvest kai and for the fisheries of Kokopu and Koura to establish. This information was recorded by Ngāti Rauhoto ancestor Werahiko Tahere.

Te Hikuwai o Tūwharetoa express, once again, their deep disappointment at the failing of Contact Energy's ability to ensure effective operational management of the Karapiti Site. We are the mana whenua kaitiaki of this rohe and as such, hold the enduring responsibility to protect and advocate for the life giving wai of the Taupō waters as they flow from its origin and travel the course of the Waikato river. Any degradation of water quality including disruption or interference with the flow of the wai adversely affects the mauri of that water body and the aquatic life within those waters that rely on the life-giving properties. In turn, our mana as kaitiaki, and relationship with the wai, is negatively impacted. The actions that led to the Karapiti incident resulted in a large volume of sediment laden material to enter and disrupt the Waipuerawera Stream and Waikato River. Through no fault of our own, Contact Energy's mismanagement has irrevocably compromised our ability to provide effective kaitiakitanga over our wai. Consequently, we now embody a sense of guilt, whakamā and regret that our taonga has been harmed. This will remain with us as we now enter a process of redress for the harm caused to the wai, taiao – and to us as kaitiaki.

Not only has this incident affected our relationship between Ngāti Tūwharetoa and the wai, but it can compromise our relationships with our neighbouring river iwi, with whom share whakapapa to these sacred waters. Traditionally, river iwi are guardians over the waters within their tribal area, guided by the iwi/hapū specific mātauranga and tikanga. This tradition continues today as river iwi assert rangatiratanga over the waters than flow past, under and within their rohe with the understanding that the condition in which the downstream iwi receive the waters reflects our role as kaitiaki.

Papatūānuku – land

“Ngāti Tūwharetoa advocate for the protection of the mauri of land in accordance with Ngāti Tūwharetoa tikanga and kawa” (Tūwharetoa Environmental Iwi Plan 2005 24).

The traditional lands of Ngāti Tūwharetoa were rich in tangible and intangible taonga that were revered, utilised, sustained and protected according to tikanga. There are several taonga ecosystems including native plant and bird species, wetland areas, riparian margins that provided vital ecosystem services to Ngā Hapū o Tūwharetoa through rongoā, māra and cultivation. There are also numerous sites of cultural significance (waahi tapu) including battle sites in the stream's upper catchment and places of burial around the Karapiti Crater).

A feature of early occupation locations was proximity and ease of access to ngahere, wai, and geothermal resources. The mātauranga-a-iwi/hapū and the associated tikanga provided a constant base of environmental and spiritual guidance to sustainably manage natural resources.

The whenua surrounding the waters will forever remain an integral part of the sacred landscape of Ngāi Tūwharetoa. The whenua must therefore be recognised for the intrinsic value that it holds in and of its own right. The ability to practice the values that make up the unique identity as nga hapū o Ngāti Tūwharetoa require all sites of cultural and historical significance to be protected and maintained to such an extent that it enables the continuation of these values for generations of Ngāti Tūwharetoa to come.

Ngāti Tūwharetoa hold the position that the Karapiti Incident detrimentally affected our relationship to the waterbodies and connectivity



Figure 7: Ngāti Tūwharetoa hapū site visit 23 June 2020. Source: TMTB

to the wider area which directly inhibited our ability to express our responsibilities as kaitiaki.

The June site visit was a welcomed opportunity for hapū to visit the site. For the majority, it was the first time to see the incident site. While it was important learn more from Contact about the system failure and how Contact have implemented immediate short and long terms plans for improved systems, it was the ability for hapū to meet kanohi ki te kanohi and ask questions, seek clarification and express our concerns that was of particular significance in terms of informing the development of restoration scope and prioritisation.

It was also an opportunity to express to Contact the intangible impact on the land. It was very clear to see the physical scarring of the land as the discharge eroded a path through the whenua to the Waipuerawera stream. As with any living entity, it was upsetting to us to see the burden placed upon the land and waterways to the point where the whenua was no longer able to cope.

It also led Whānau to raise several issues such as why the spill pond was positioned on the side of a gully cliff in the first place. In terms of the location of the new “replacement” pond (next to a dry flow gully system) Whānau were concerned that Contact had not engaged Tūwharetoa at all in regard to the design, location and appropriate tikanga (e.g. karakia on site). It was an expectation of Ngāti Tūwharetoa that given the extent of impact, and the admission that the original pond was not located in an suitable location, consideration should have been given to a more collaborative process with iwi/hapū in terms of redesigning and repositioning of the new pond.

As a consequence of the test results performed by 4Sight Consultants, Ngāti Tūwharetoa are now more aware of the levels and content of contaminants that are contained within these sort of storage ponds, concern was therefore expressed about the leeching potential of geothermal elements (e.g. arsenic) into groundwater below. This discussion was also linked to the future use



Figure 8: New pond under development at the Karapiti Site. Source: TMTB

of the land after decommissioning with Whānau concerned about how Contact will ensure the land is suitable for future use.

Mauri

“E kore te ringa tangata e tineia te ahi tapu o taku maunga” No human hand can ever extinguish the sacred fire of my ancestors on the land”.

Nā Mananui

Ngāti Tūwharetoa Deed Settlement 2017

Upholding the legacy laid down by Ngatoroirangi is an inherent responsibility that transcended all other matters. Every knowledge system within Ngāti Tūwharetoa had an ideological basis in this world view. It was one of formal acknowledgement and systemised kinship with all things within the cosmos, held together and governed by a very rigid set of rules, by tikanga and kawa. These whakapapa relationships were the foundation upon which our actions were based. It necessitated that we protect, nurture, maintain and respect all within our world, and through the knowledgeable application of all these knowledge systems, we upheld the mana and mauri of the people and all we identified and defined as being of significance. This was the fundamental basis of the nineteenth century Ngāti Tūwharetoa worldview.

As mana whenua, the health of our people is reflected in the health of our Taiao, and vice versa. Variety and vitality of life within ecosystems requires synergistic balance between the physical and spiritual realms to sustain, strengthen and promote life. Disturbances to this holistic cycle threaten the ability of the life-giving capacities of the tiao domains. As a direct result of the Karapiti incident, the wairua of the waterways has been degraded. From the first notification of the incident through till today, the impact on the mana, mauri and wairua are deeply felt by Ngāti Tūwharetoa. The hapū are also deeply distressed that their strong spiritual association with the River has been disrupted, and that the river’s mauri has been detrimentally affected. Restoring the health of the river is not just about meeting all the science-based targets for the river, although to do so would be a significant step in the right direction. The cultural health of the river goes beyond physical parameters to also encompass spiritual, cultural, and emotional dimensions. These aspects might serve as additional criteria for assessing the proposed discharge, and the mauri or life force of the river. For each criterion, indicators might be

applied, and questions might be posed that enable the river to be assessed in finer detail.

Due to the immediate visual impact, the incident gained national media and forced an immediate response from iwi/hapū to determine the details of the incident – most pressing, was the level of containments and extent of impacts on the awa and surrounding environs. Tūwharetoa Māori Trust Board fielded calls from concerned members of the public, in which we were expected to provide a response as how and why the incident occurred.

In this way, the reactionary space that mana whenua are often put in, is exacerbated even further as we have to front our own people with immediate answers regarding an operational failure that we have no control over. In this way, the mana and wairua of Ngāti Tūwharetoa, as guardians of our tupuna awa is also affected.

A positive element of the restorative justice process is the enabling potential for Ngāti Tūwharetoa to heal the whenua, wai and wider taiao and in turn restore and rehabilitate from the impacts of the Karapiti Incident. It also provides opportunities to activate some of our environmental goals we have for this area to help improve and preserve the environs. Some key questions that this process has prompted are how can we align our iwi/hapū aspirations? Particularly around the inclusion of remediation options as part of a wider long-term environmental strategy. In addition, it allows Ngāti Tūwharetoa to express our kaitiakitanga through active involvement and in turn, start to heal ourselves from the impact experienced from this event.

Mauri Ora – Whānau Ora

A positive outcome of continued engagement with Contact post incident is the opportunities for Ngāti Tūwharetoa uri to be directly involved with initial restoration works. Tūwharetoa Māori Trust Board together with Ngā Kaihautu o te Awa o Waikato promptly developed the Waipuerawera Restoration Project. As mentioned in earlier sections, the overarching scope of the project was to:

“remediate the damage caused by the Contact energy spill and years of neglect the stream has endured. This is to be a total catchment approach assessing the land use of adjacent land blocks, weed removal, restorative planting access and marking of cultural sites. This will also involve working with adjacent land owners and assisting them with how to better care for the stream” (TMTB & MKoTA 2019 2).

An important outcome of this process to date has been the successful planting of 150 native trees along the lower banks of the Waipuerawera Stream in September 2019. This initiative involved Ngā Kaihautu members alongside tamariki from Te Kura Kaupapa Māori o Whakarewa and was part of the first stage of works presented in the *“Waipuerawera Restoration Project Proposal 2019”*. Karakia for the health and healing of the stream and environment were undertaken. It was an important day for bringing our uri together with Contact staff as an initial first step to a commitment to future restoration works.

As indicated on the site visit, hapū noted the opportunities for collaborative partnerships that are mutually beneficial as part of the restoration works. Seeking opportunities to promote whānau ora has remained a key focus for Ngāti Tūwharetoa, and opportunities that contribute to environmental, social, cultural and economic wellbeing are a targeted priority. Ngāti Tūwharetoa envision future restoration works as a prime example of the development of an initiative that sees uri o Ngāti Tūwharetoa exercising kaitiakitanga for their tupuna whenua while receiving economic benefit. Participating in planning, plant selection, placement and timing etc and applying decision making based on Mātauranga-a-iwi/hapū also contributes positively to hapū/whānau ora. Given the global challenges of 2020 with regards to the COVID-19, finding immediate solutions to Whānau economic hardship continues to be a focus.

Wāhanga Tuarima: Kaupapa Statements and Recommendations

What is provided below are a series of statements that set out the ‘kaupapa’ of Ngāti Tūwharetoa in relation to the values described in the previous section. Growing from these values and kaupapa statements are the specific recommendations that are put forward to address the Karapiti Incident and the longer-term concerns that Tūwharetoa have identified.

The intention of this table is to identify recommendations that specifically address the values discussed that have been impacted by the Karapiti Incident and wider operations by Contact. While they are divided into discrete sections in fact the recommendations below would result in positive outcomes across all three of the values identified in the CIA.

Importantly the implementation of recommendations must be done with Tūwharetoa as a partner and with ongoing discussion and dialogue between Contact and Tūwharetoa.

Overarching Value	Kaupapa Statement	Recommendation
Whakapapa	Tikanga: our tikanga is a central consideration in the blueprint that we develop for our future.	Tikanga – incorporate a process for tikanga inclusion in Contact energy works into relationship document e.g. ceremony for completed works.
		A cultural materials plan for rongoā and mahinga kai within the affected area is developed with support from any compensation from the sentencing. This should include ecological protection and survey of species already present and their protection and enhancement.
	The whakapapa and mana whakahaere of Tūwharetoa is acknowledged and promoted.	Contact Energy Support the establishment of cultural significance design for Tūwharetoa in the areas. re-establish cultural landscape through place names, pou, information panels etc.
		Contact Energy provide professional development opportunities for their staff on Ngāti Tūwharetoa values and aspirations – consciousness building within their staffing.
		Contact Energy review its Health, Safety and Environment Policy and Tauhara Committee Charter based on the findings of this Cultural Impact Assessment.
Contact Energy review its Director Skills Matrix to increase the weightings for expertise in the area of “Iwi connection/relationships” (refer to Contact Energy Annual Report 2019).		
Contact Energy post the Cultural Impact Assessment report on the News page of its website.		

**Mana
Whakahaere/
Kaitiakitanga**

Mana Whakahaere/Kaitiaki
Ngāti Tūwharetoa are actively supported in their kaitiaki roles and responsibilities.

Management plans and monitoring have been developed with a mind to reducing the risk of this happening again.

A tikanga/mātauranga monitoring plan is developed by Tūwharetoa (resourced by Contact). This could include the installation of eco sensors at key locations and real time information stream, alongside mātauranga monitoring indicators.

An Iwi Protocols Resource Package is currently under development by Ngāti Tūwharetoa, implementation of these protocols requires a commitment across all sectors and groups who have a connection to the Waikato River. Contact Energy should be one of the organisations who are familiar with Tūwharetoa Protocols for the Waikato River in the areas identified. Contact's commitment to enhancing cultural awareness and relationships with Tūwharetoa should include familiarity with our Iwi protocols. This could be integrated as part of the cultural competency training for staff as noted in the recommendation above.

Contact Energy explores alternative options regarding groundwater seepage from current storage ponds.

Contact Energy develops a comprehensive site decommissioning plan. Included should be steps to decontaminate the land and first right of refusal to the land be afforded to Te Hikuwai o Tūwharetoa.

Contact Energy prepares an annual monitoring report for the site which will be provided in an annual forum with Ngāti Tūwharetoa. This should include reporting against the cultural values outlined in this CIA as well as any additional values identified by Ngāti Tūwharetoa. This will require the development of a cultural values reporting mechanism.

Ngāti Tūwharetoa maintain that this unity is their strength, enabling them to protect their people and taonga. Ngāti Tūwharetoa thrive when hapū and Whānau are strong and united by whakapapa and tikanga.

Collaboratively design a research grant/scholarship in which is funded by Contact Energy. Details of scope to be developed in collaboration with Ngāti Tūwharetoa.

It is expected that Contact Energy will assist in supporting any cultural health indicator framework developed for the Waipuerawera Stream and Waikato River.

Mauri

The health and wellbeing of the Taupō Catchment reflects and nourishes the health and wellbeing of Ngāti Tūwharetoa.

Formal commitment by Contact Energy to honour the "Waipuerawera Stream Restoration Plan" developed by Tūwharetoa Māori Trust Board and Ngā Kaihautu o te Awa o Waikato including the confirmation of stage timelines and the first right of refusal to Ngāti Tūwharetoa for all contracting and planting works.

Ngāti Tūwharetoa expect Contact Energy to commit to a more thorough catchment restoration plan for the Waipuerawera stream (in addition to the proposed "Waipuerawera Restoration Works" Plan) which would require wānanga components in its design and resourcing opportunities for Tūwharetoa to undertake the mahi.

Ngāti Tūwharetoa expect as part of commitment to reducing the environmental and ecological impacts of current operations including farmland, a transition to less chemical reliance. For example, regenerative agriculture using biological farming methods promotes a more sustainable approach to land use. Ngāti Tūwharetoa expect that Contact Energy engage in a scoping study with Ngāti Tūwharetoa as partners to look at regenerative farming practices on Contact Energy owned farms.

Ngāti Tūwharetoa supports the recommendations provided by Wildlands.

Ngāti Tūwharetoa supports the recommendations provided by 4Sight regarding the implementation of an ecological and cultural monitoring programme aimed at regularly monitoring ecological and cultural health of the Waipuwera stream.

Contact Energy develop a formal trust mechanism with Ngāti Tūwharetoa focused for enhancing and protecting mahinga kai and natural environment in the upper Waikato River catchment, similar to what Contact Energy has developed with Iwi in other rohe such as the Mata-Au Trust [different to the Tauhara Geothermal Trust & Wairakei Charitable Trust which focuses more on providing education grants etc].

The active protection and restoration of the relationship of Ngāti Tūwharetoa with the Taupō Catchment (including Ngāti Tūwharetoa mana whakahaere and kaitiaki roles):

Formalise a relationship between Contact Energy and Te Hikuwai o Tūwharetoa Marae and Hapū where mutually agreed Terms of Reference are developed to promote; improved communication, provide a process-based approach for notification and consents, improved familiarity with respective entity processes and improved decision-making processes.

Contact Energy has geothermal power stations on Tūwharetoa land blocks; Wairakei & Tauhara both which require significant tangata whenua engagements around consenting. This process could benefit from having an iwi liaison/ Tūwharetoa competent full-time staff member.

Contact provision and support self-sustaining energy options for marae within Tūwharetoa.

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