

Tūtaekurī Awa Management and Enhancement Plan

Prepared by: Ngā Hapū o Tūtaekurī



This plan has been endorsed and supported by the following groups:

Group	Location of endorsement	Date	Chairperson
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<i>Ngāti Kahungunu Iwi Incorporated (NKII)</i>	<i>NKII Regional Office</i>	<i>01 October 2014</i>	<i>Dr Adele Whyte</i>

NB: A plan review will take place every three years with the inclusion of specific ‘Strategic Implementation Plans’ and ‘Formal Agreements’. The ‘Strategic Implementation Plans’ and ‘Formal Agreements’ for these first three years will be added to the next reviewed plan as they are currently being developed.

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Acknowledgments

Ngā Hapū o Tūtaekurī would like to acknowledge the following people who have provided a combination of their time, input and resources into the production of this plan. Ngā mihi nui ki a koutou katoa.

Roy Pewhairangi

Jenny Mauger

Hoani Hawaikirangi

Raewyn Solomon, Te Rūnanga o Kaikōura

Simon Aitken

Maika Nuku

This plan may be referenced as:

Hawaikirangi, H., Hawaikirangi, T. K., & Ormsby, C. 2014. Tūtaekurī Awa Management and Enhancement Plan. Prepared by: Ngā Hapū o Tūtaekurī.

Table of Contents	Page Number
<u>Part 1: Introduction</u>	7
1.1 He kōrero paki - Our story	7
1.2 Whakatauaākī – Proverb	7
1.3 Ngā Hapū o Tūtaekurī connection to the Tūtaekurī awa	7
1.4 Purpose of the Ngā Hapū o Tūtaekurī Management and Enhancement Plan	8
1.5 Our aspirations as tangata whenua for the Tūtaekurī awa	9
1.6 Main Principle – Enhancing the mauri of the Tūtaekurī awa	9
<u>Part 2: Te Mana Atua</u>	10
2.1 Background to Te Mana Atua	10
2.2 Papatūānuku	12
2.2.1 The aspirations of Ngā Hapū o Tūtaekurī for Papatūānuku	12
2.2.2 Ngā Hapū o Tūtaekurī concerns for Papatūānuku	13
2.2.2.1 <i>The accelerated erosion of sediments from forestry & agricultural land uses</i>	14
2.2.2.2 <i>Gravel extraction</i>	16
2.2.2.3 <i>Hydraulic fracturing</i>	17
2.2.3 Where Ngā Hapū o Tūtaekurī sees more research and knowledge is needed to better understand mauri as it relates to the realm of Papatūānuku	17
2.2.4 What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Papatūānuku	18
2.3 Tāne Mahuta	19
2.3.1 The aspirations of Ngā Hapū o Tūtaekurī for Tāne Mahuta	19
2.3.2 Ngā Hapū o Tūtaekurī concerns for Tāne Mahuta	20
2.3.3 Where Ngā Hapū o Tūtaekurī sees more research and knowledge is needed to better understand mauri as it relates to the realm of Tāne Mahuta	22

2.3.4	What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Tāne Mahuta	22
2.4	Tangaroa	23
2.4.1	The aspirations of Ngā Hapū o Tūtaekurī for Tangaroa	23
2.4.2	Ngā Hapū o Tūtaekurī concerns for Tangaroa	24
2.4.2.1	<i>Excessive algal growth and nutrification of the awa</i>	24
2.4.2.2	<i>Faecal contamination from stock access to waterways and stream margins and as diffuse catchment runoff</i>	25
2.4.2.3	<i>Lack of stream and river edge shading and its effect on elevated water temperatures</i>	26
2.4.2.4	<i>River and stream flows</i>	27
2.4.3	Where Ngā Hapū o Tūtaekurī sees more research and knowledge is needed to better understand mauri as it relates to the realm of Tangaroa	29
2.4.4	What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Tangaroa	30
2.5	Tāwhirimātea	31
2.5.1	The aspirations of Ngā Hapū o Tūtaekurī for Tāwhirimātea	31
2.5.2	Ngā Hapū o Tūtaekurī concerns for Tāwhirimātea	32
2.5.2.1	<i>The wind dispersal of contaminants in discharge to air activities, primarily (spray drift) on agricultural land, particularly in areas where mahinga kai is collected</i>	32
2.5.2.2	<i>The potential use of neonicotinoid containing insecticides within the Tūtaekurī awa catchment</i>	33
2.5.2.3	<i>The aerial application of agrichemicals and fertilisers to land that may enter the awa</i>	33
2.5.3	Where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realm of Tāwhirimātea	34
2.5.4	What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Tāwhirimātea	35

Part 3: The future	36
3.1 <i>Realisation of Kaitiakitanga: Enhancement of mana whenua connection to, and authority over the Tūtaekurī awa</i>	36
3.2 Working in partnership	38
3.3 Whakataukī whakamutunga	39
Glossary	40
References	42

Part 1: Introduction

1.1 He kōrero paki

Nā te manaakitanga, ka patua te mokai, ka ora ngā manuhiri

Our tipuna Hikawera II fed a starving group of stragglers by killing 70 pairs of their much loved dogs in order for the group to survive. The offal from the feast was thrown into the river we know as Tūtaekurī today. Tūtaekurī translates to dog excrement.

Generosity and hospitality for others was upmost.

1.2 Whakatauākī

Maranga ra kia hiwa ra, aue!

Rapua e ngā mea ngaro e

Rise up, be watchful!

Search after our lost treasures

1.3 Ngā Hapū o Tūtaekurī

Our whakapapa extends back to Tangaroa, Pania and Moremore, recognising the links we have to the water bodies stretching from the Kaweka Ranges to Te Whanganui-a-Orotu. Both Te Whanaganui-a-Orotu and Tūtaekurī awa were centrally integral to the prosperity and survival of the tangata whenua who dwelled and still dwell in its vicinity. Tūtaekurī awa is a taonga that represents the history and emotional attachment of Ngā Hapū o Tūtaekurī, a place central to the identity of our people, where we can go to be revitalised, a place that represents the hopes and aspirations of tangata whenua, the life-giving waters from which we drink. Since the 15th Century our tīpuna have lived as one with Tūtaekurī awa. It is well-known that the tangata whenua of the Tūtaekurī awa not only treasured but protected this valuable resource. Our ancestors include the interwoven union of people belonging to;

Te Tini o Toi, Ngāti Whatu Mamoa and then with the arrival of Taraia, a prominent Rangatira of Ngāti Kahungunu. Generations later Ngāti Paarau, Ngāti Hinepare, Ngāti Māhu and Ngai Tāwhao formed their respective societies yet maintained ancestral, spiritual and physical links between themselves and the Tūtaekurī awa. Not only do we have the whakapapa to affirm our mana whenua, but we are also current landowners and trustees living in arms reach of the awa.

We will identify our concerns below particularly around the current land management activities that impact upon the Tūtaekurī awa. They are grouped under an overarching principle of the *Mauri* or *life force* of the awa. As descendants of the four hapū who took care of and cohabitated with the Tūtaekurī awa for more than 600 years, we have come to the realisation of a need for the active involvement around the decision making, management and enhancement of our taonga tuku iho. When conducting kōrero with tangata whenua regarding the mauri of the Tūtaekurī awa it is with feeling of bleak and agonizing regard for the gradual degradation of our taonga.

1.4 Purpose of the Ngā Hapū o Tūtaekurī Management and Enhancement Plan

The purpose of this plan is to identify and describe the views and intentions of the Tūtaekurī awa Hapū and our aspirations for the Tūtaekurī awa in the future. Ngā Hapū o Tūtaekurī formulated this management and enhancement plan to set direction for ourselves as tangata whenua on the matters we see as needing to be addressed for Tūtaekurī awa. This plan is intended to be a living document, recognising possible changes and addition as situations may alter. The area in which this plan is relevant encompasses the region and resources which can affect the mauri, of the current and historical path of the Tūtaekurī awa. Parts of this plan will be included in the Hawke's Bay Regional Council's Tūtaekurī Ecological Management and Enhancement Plan. This plan is also intended to be used within and by the community, territorial authorities, government and non-government organisations that may have influence over the *mauri* of our awa. Ngā Hapū o Tūtaekurī seek to work in partnership with the HBRC and/or other parties to achieve the aspirations and further research needed to undertake in order to enhance the mauri of the Tūtaekurī awa. *Ngā Hapū o Tūtaekurī* has a key role to exercise kaitiakitanga of this taonga as we are the authoritative ancestral voice of Tūtaekurī. This role is provided for in the Resource Management Act 1991 where we as tangata whenua are responsible for ensuring the purpose of this Act being the protection and development of natural resources is administered.

1.5 Our aspirations as tangata whenua for the Tūtaekurī awa

- Enhancement of the mauri of the Tūtaekurī awa
- Enhancement of rongoā and native species proliferation
- Enhancement of mahinga kai species proliferation
- Realisation of kaitiakitanga for *Ngā Hapū o Tūtaekurī*

1.6 Main Principle – Enhancing the mauri of the Tūtaekurī awa

The concept of mauri is central to tangata whenua belief regarding the environment. Mauri is the binding force between the physical and the spiritual aspects. Mauri is the essence that has been passed from atua; Ranginui and Papatūānuku to their progeny Tāne Mahuta, Tangaroa, Tawhirimatea and other atua, then down to all living things.

Mauri is considered to be the essence or life force that provides life to all living things. Water also has mauri. The linkages between all living things within the ecosystem are based on the whakapapa or genealogies of creation. This establishes the basis for the holistic view of the environment and our ecosystem held by the tangata whenua.

Mauri is a concept that can be measured in part by a scientific capacity through the use of methods such as the Mauri o Meter assessment tool (Te Kipa Kapa Brian Morgan, 2004). In discussion we as the tangata whenua of the Tūtaekurī awa are aware that its mauri is degraded through physical contact and observation over generations. We know through monitoring, testing, scientific reporting, and from living on the Tūtaekurī awa that the mauri of the awa has degraded by the impact of land development in the catchment.

Ngā Hapū o Tūtaekurī aims to reverse this trend towards the continual loss of mauri to our awa by developing a tangata whenua focused management and enhancement plan and through the production of a strategy that breathes life back into the mauri of the awa.

In order to incorporate the concept of enhancing mauri into this plan we have broken our report into the key life essences that flow through it, and that also form integral parts of ecosystem connectivity. These life essences are identified as “Te Mana Atua”.

Part 2: Te Mana Atua – The power of spiritual guardians

2.1 Background to Te Mana Atua

The sacred spiritual power that our atua, or spiritual guardians, hold cannot be ignored when viewing our awa. Te Orokohanga (creation story) tells of how darkness became light, nothing became something, Ranginui, our sky father, and Papatūānuku, our earth mother, were separated, and from there nature evolved. The creation story tells of Te Ao Mārama (the world of life and light), bringing forth the ability to live and grow in this world. Our atua are responsible for making and protecting our natural world. All living organisms that are visible and unseen are recognised in the essential functioning of all aspects of the river; therefore all systems within and around the river are taken into consideration. We recognise and believe that each aspect of Tūtaekurī awa life is fostered and protected by atua. A balance in the well-being of the natural and supernatural world is essential to the mauri of the awa.

In alliance with the spiritual realm, is the physical world in which it influences. The spiritual guardians stated below are those we consider needing support and enhancement in the realms of Tūtaekurī awa in which they protect (see Figure 1 to conceptualise it). To help align scientific thinking with the spiritual values, a brief description of each atua's sphere is included:

- **Papatūānuku** – the earth mother (land) incorporates the scientific areas of; geology, soil science, soil chemistry, agriculture and botany. Papatūānuku's realm of responsibility and protection for the Tūtaekurī awa includes; sediment, gravel and neighbouring land management to permit quality habitat growth and to reduce any negative impacts on the realms of Tangaroa and Tāne Mahuta.
- **Tāne Mahuta** – the spiritual guardian of the forest and all living things that dwell within, incorporating the scientific areas of; botany and zoology. Tāne Mahuta's realm of responsibility and protection for the Tūtaekurī awa includes; the health and proliferation of native plant species to harbour biodiversity, to mitigate any damage or possible harm to the realms of Tangaroa, and to foster the whenua it grows above.
- **Tangaroa** – the spiritual guardian of water bodies and all living things that dwell within, incorporating the scientific areas of marine biology, aquatic biology, fresh water science and hydrology. Tangaroa's realm of responsibility and protection for the Tūtaekurī awa

includes; the quantity and quality of water to ensure native species proliferation and biodiversity, and to support the ecosystems of Tāne Mahuta and Papatūānuku.

- **Tāwhirimātea** – the spiritual guardian of wind, incorporating the scientific area of meteorology and climatology. Tāwhirimātea’s realm of responsibility and protection for the Tūtaekurī awa includes; air quality that does not jeopardise the eco-systems of Papatūānuku, Tāne Mahuta and Tangaroa.

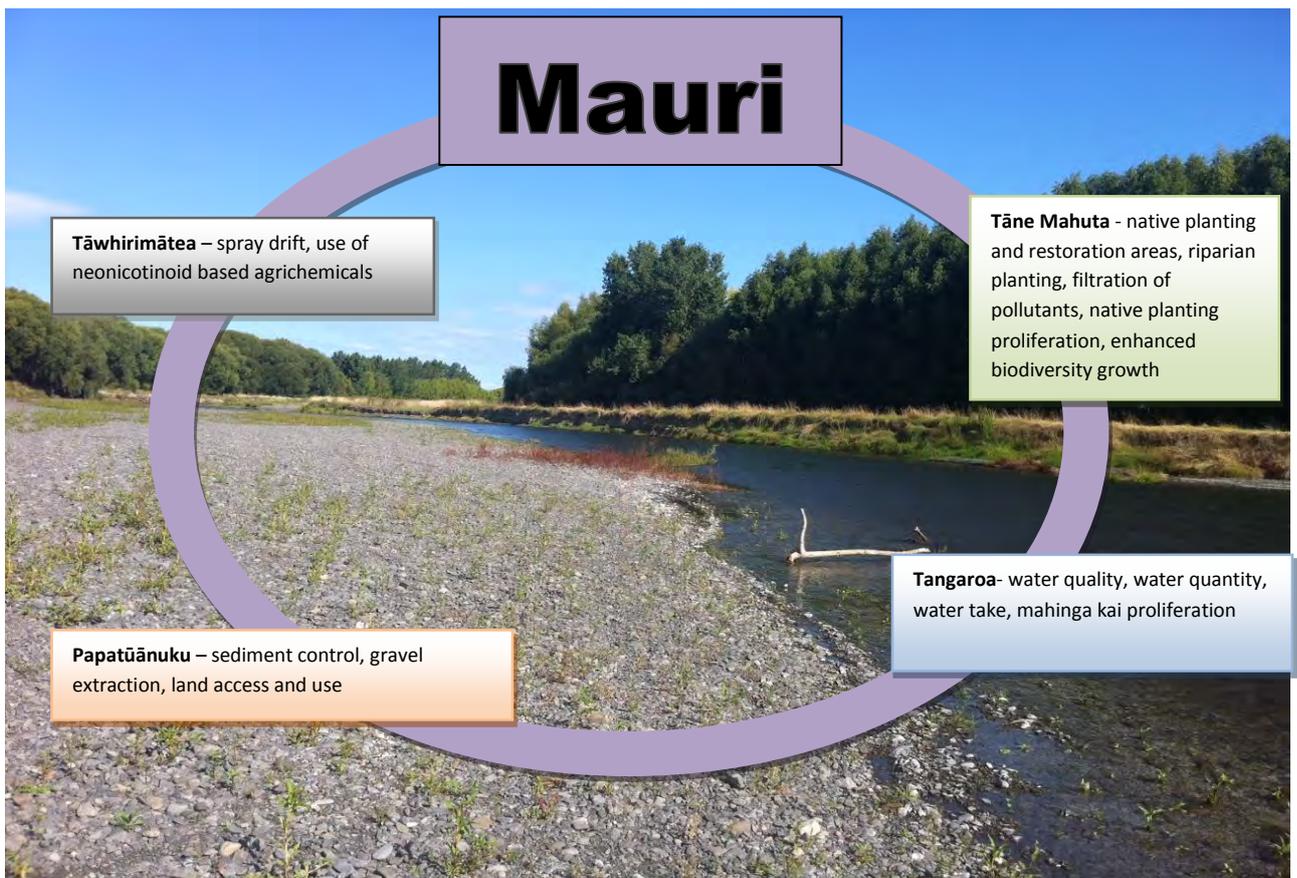


Figure 1: Te Mana Atua and its interconnection with mauri

Each of the above 4 realms are further broken down into 4 topic areas that aim to outline our goals and methodology for enhancing mauri and are structured in the plan as follows:

- Discuss the aspirations of Ngā Hapū o Tūtaekurī for each atua,
- Discuss Ngā Hapū o Tūtaekurī concerns for each atua,
- Discuss where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realms of each atua,
- Put forward what Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for each atua.

2.2 Papatūānuku

2.2.1 The aspirations of Ngā Hapū o Tūtaekurī for Papatūānuku

Ngā Hapū o Tūtaekurī has the following key goals for enhancing and reasserting mauri back into Papatūānuku and these are:

- a. Ensuring that Papatūānuku is able to support diverse ora and ecosystems within the greater Tūtaekurī awa catchment,
- b. Ensuring that the total area of erosion prone and exposed ground coverage decreases each year over the next 10 years (2015-2025),
- c. Ensuring that excessive sediment generation sourced from erosional forces are locked into Papatūānuku through native planting initiatives,
- d. Ensuring that good environmental land management policies and practices, which restore the ecological health and mauri of the Tūtaekurī awa are adopted and adhered to by government agencies, businesses and land owners within the Tūtaekurī awa catchment.

2.2.2 Ngā Hapū o Tūtaekurī concerns for Papatūānuku

Ngā Hapū o Tūtaekurī have inherited a landscape from our tīpuna that has been heavily modified, and shaped, to a point that the current land coverage and land use activities will bear little similarities to the native forests, and abundant and diverse ecosystems that previously sustained our tīpuna living on the banks of the Tūtaekurī awa. Pastoral grass cover, residential and industrial developments, horticulture cropping, and plantation forestry have replaced the previously flourishing native flora and fauna that blanketed Papatūānuku.

The environmental effect of this shift from a natural indigenous ecosystem to an anthropogenic shaped landscape has served to remove the blanket of native vegetation that bound and retained soil and sediments on the land, and that also captured, stored, utilised and filtered the tears that fell from Ranginui. As a consequence we now have parts of a catchment that is highly erodible, and bleeds sediment into the awa under rainfall events as shown in Photo 1 below where the awa runs brown as it's choked with sediment following heavy rain.



Photo 1: Tūtaekurī awa at Waiohiki Bridge (9 April 2014). Note the brown sediment clogged the awa.

Gravel is also taken out of our awa with causing both localised and downstream effects on the awa's geomorphic whakapapa and the awa's ability to sustain diverse and healthy ecosystems.

The future extraction of oil and gas from the depths of Papatūānuku and the risk of land and groundwater contamination from this activity is a further concern for Ngā Hapū o Tūtaekurī.

A breakdown of key land management issues of concern to tangata whenua are as follows:

2.2.2.1 The accelerated erosion of sediments from forestry & agricultural land uses

Ngā Hapū o Tūtaekurī has significant concerns relating to the generation and supply of sediments to the awa from forestry and agricultural land uses. We are concerned of the effect that modified land driven erosion is having on Papatūānuku through the loss of valuable fertile soils, and the subsequent down slope adverse ecological effects on Tangaroa (waterways).

The excess influx of sediment into our awa as a result of poor land management can cause damage to our awa and its tributaries by blocking light that allows algae to grow; harming fish gills; filling up important habitats; supporting growth of toxic cyanobacteria; and by stopping fish from seeing well enough to move around or feed. Sediments can also bind to contaminants such as nutrients, bacteria, and toxic chemicals from surrounding lands used for agriculture and horticulture and then flow into our waterways to inflict ecological harm (NIWA, 2014). This ecological harm is further perpetuated by the effect that excess sediment has on interrupting fish lifecycles by adversely impacting on egg development in our native fish species; by wiping out the next generation coming through; and by disrupting the habitat and lifecycles of the macro-invertebrates that feed them.

Ngā Hapū o Tūtaekurī is particularly concerned of the accelerated supply of sediment caused by erosion from Papatūānuku and into Tangaroa on land uses in the Tūtaekurī catchment that agriculture, horticulture, and plantation forestry occupies.

On agricultural land in the awa catchment we know that livestock are grazed on steep erosion prone hill country; are grazed close to and often within waterways; and are grazed along pasture with no riparian vegetative buffers between the land and the awa. We're also aware that horticultural land in the catchment is at risk of generating large quantities of sediment into the awa particularly when there are repeated cultivation activities such as ploughing, fertilising, and drilling of land bordering sites with no riparian vegetative buffers between the land and the awa to capture and filter this runoff.

Forestry clearance and the harvesting of pine plantations in our catchment also pose significant threats to our awa. The harvesting of plantation forestry in large lots has the consequential effect of creating excess runoff of water into the awa, and the effect of this is coupled with the loss of soil stability with vegetation removal which together accelerates erosional processes and sediment supply from Papatūānuku.

The impact of this excessive supply of sediments in condensed timeframes can lead to the disruption of ecosystems, and the consequences of this on Papatūānuku and Tangaroa is the further degradation of mauri, which is coupled with the loss of sites suitable for the gathering of mahinga kai.

The HBRC Regional Resource Management Plan (RRMP) enables the management of the river with its surrounding land uses so that this is an integrated process. The RRMP sets Regional Rules that regulates vegetative clearance and soil disturbance activities in the Hawke’s Bay Region and Rule 7 of this plan (detailed below) outlines this.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
7 Vegetation clearance and soil disturbance ²⁹ Refer to POL 3, 67, 71	Vegetation clearance ³⁰ or soil disturbance ³¹ activities.	Permitted	<ul style="list-style-type: none"> a. All cleared vegetation, disturbed soil or debris shall be deposited or contained to reasonably prevent the transportation or deposition of disturbed matter into any water body³². b. Vegetation clearance or soil disturbance shall not give rise to any significant change in the colour or clarity of any adjacent water body, after reasonable mixing. c. No vegetation clearance shall occur within 5 metres of any permanently flowing river, or any other river with a bed width in excess of 2 metres, or any other lake or wetland, except that this condition shall not apply to: <ul style="list-style-type: none"> i. the clearance of plantation forestry established prior to the date of this Plan becoming operative, or ii. the areas identified in Schedule X to this Plan. d. Deposition of soil or soil particles across a property boundary shall not be objectionable or offensive, cause property damage or exceed 10 kg/m². e. Where the clearance of vegetation or the disturbance of soil increases the risk of soil loss the land shall be: <ul style="list-style-type: none"> i. re-vegetated as soon as practicable after completion of the activity, but in any event no later than 18 months with species providing equivalent or better land stabilisation; or ii. retained in a manner which inhibits soil loss. 		

Table 1: HBRC RRMP Rule 7

(Source: http://www.hbrc.govt.nz/HBRC-Documents/HBRC%20Document%20Library/RRMP_Ch6.pdf)

Ngā Hapū o Tūtaekurī is deeply concerned that Rule 7 does not require prior to the clearance of vegetation, particularly in the case of plantation forestry clearance, the adoption of measures that retain and trap sediments on land. As a consequence of this there is no regulated oversight of forestry clearance activities from a sediment management perspective, and cleared forestry blocks bleed high volumes of sediment into the awa creating significant ecological harm.

Ideally control measures should include the requirement for sites destined for forestry clearance to have sediment and erosion control management plans established prior to felling occurring, and these plans should be targeted at adopting site specific measures onsite that reduce sediment runoff post clearance (i.e. sediment retention ponds; silt traps; installation of protective bunds; & stabilisation of ground cover etc.). We acknowledge that the HBRC has prepared DRAFT Forestry Erosion and Sediment Control guidelines however there is no requirement to follow them and as a result the default outcome

continues which results in the periodically high volumes of sediment running off into the awa following the removal of forestry.

We see the land management policy for the protection of indigenous biodiversity adopted by the Horizons Regional Council in their One Plan (Section 12) as suitable for adoption by HBRC to better protect our awa from the adverse effects of accelerated sediment supply. Key aspects of the policy that we support include:

- Requiring the activity of forestry clearance and cultivation to be a consented activity;
- Requiring forestry companies undertaking these activities to prepare Erosion and Sediment Control Plans;
- Requiring foresters to adopt sediment control methods during cultivation to prevent sediment supply to the awa;
- and ensuring these control measures are able to minimize the effect of forestry clearance under heavy rain and storm events.

This policy further provides protection of our wetlands, lakes, and our awa and its tributaries by:

- Requiring the maintenance of riparian margins of 5m from our waters;
- Requiring the maintenance of riparian margins of 10m from wetlands, fish spawning sites, and freshwater sites of significance;
- Ensuring a sediment standard of no greater than 20% change in visual clarity;
- Requiring planting pre-clearance and replanting post clearance;
- And ensuring logs are not felled into water bodies or dragged through them.

We feel that HBRC's Rule 7 is ineffective and needs to be replaced with a policy that places the locking of sediment into the whenua as the principle focus and end state much like Policy 12 of the Horizons Regional Council One Plan has achieved.

2.2.2.2 Gravel extraction

Ngā Hapū o Tūtaekurī is concerned of the adverse effects that gravel extraction has on Papatūānuku. The interruption caused by gravel removal of natural geomorphic processes that shape the awa's channel creates alterations in downstream river processes, and the adverse effects that this has on ecosystems is significant which in turn degrades the awa's mauri. Over-extraction of river gravels from the Tūtaekurī awa can lower the riverbed, change the channel profile, and alter riverbed sediment

composition. The resulting changes in river sediments and channel hydraulics could have significant effects on communities of benthic invertebrates, small creatures living within the gravels, and fish. Farther downstream, reduced gravel supplies to the coast can upset the stability of the Waitangi Estuary and can accelerate coastal erosion (Kelly et al, 2005). We are also concerned of the localised effect that heavy machinery has on our manu and our ngāngara that reside and inhabit the awa's gravels.

Ngā Hapū o Tūtaekurī acknowledges that gravel extraction is necessary for flood control management, which requires that a balance be found between the supply of gravel from the Kaweka Ranges and its extraction.

We believe an approach of environmental off-setting against the adverse effects that gravel extraction has on Papatūānuku, and consequently mauri, needs to be addressed through native planting initiatives that will enhance the mauri of the awa. This can occur through the financial levying of gravel extraction that can be put towards native riparian planting along the riparian margins of the awa. We therefore believe that the Hawkes Bay Regional Council's Ecological Management plan for the Tūtaekurī awa include provisions for "financial contributions" to be made towards riparian planting to offset the adverse effects on Papatūānuku posed by gravel extraction in accordance with Sections 108 (9) (a) & 108 (10) (a) & (b) of the Resource Management Act 1991.

2.2.2.3 Hydraulic fracturing

Ngā Hapū o Tūtaekurī is concerned about the future potential environmental risks to surface and groundwater quality in the Tūtaekurī awa catchment from oil exploration via hydraulic fracturing ("fracking") and we feel that this area is too great a taonga for oil exploration activities to be undertaken in our awa's catchment. We are also concerned of the effects on our awa from fracking in surrounding catchments that are connected to the Tūtaekurī via underground aquifers. Our key concerns are due to the inherent risks to the environment and subsequently eco-systems from fracking in the event of accidental or poorly planned discharge of fracking liquids to the environment.

2.2.3 Where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realm of Papatūānuku

- a. Identification and analysis of fine sediments deposited in the lower reaches of the Tūtaekurī awa, in order to determine what land uses are contributing to sediment discharge. (Note: This

information will be used to inform where erosion prevention/control and riparian planting is to be best targeted),

- b. The determination of load calculations for sediment discharges from land throughout the sub catchments that drain into the awa,
- c. The determination of nutrient loads (nitrogen and phosphorous) including flow parameters, and input routes originating from land uses with primary industries (i.e. horticulture, livestock farming, dairy farming) in the awa's greater catchment,
- d. Identification and GIS mapping of erosion prone pastoral farmland that are suitable and requiring of planting initiatives,
- e. Identification and GIS mapping of waterways bordering and draining horticultural land activities that are suitable and requiring of riparian planting.

2.2.4 What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Papatūānuku

- a. The setting of legislative requirements for the forestry sector to adopt stringent sediment control and management practices atop their forestry blocks for implementation at all stages of the forestry cycle,
- b. Targeted native planting of erosion prone pastoral farmland in the Tūtaekurī awa catchment,
- c. Targeted riparian planting of waterways bordering and draining horticultural land activities,
- d. To include in the Hawkes Bay Regional Council's Ecological Management plan for the Tūtaekurī awa provisions for "financial contributions" to be made towards riparian planting to offset the adverse effects on Papatūānuku posed by gravel extraction in accordance with Sections 108 (9) (a) & 108 (10) (a) & (b) of the Resource Management Act 1991.
- e. Ensuring that hydraulic fracturing does not occur in the Tūtaekurī awa catchment, and atop neighbouring catchments that share underground aquifers.
- f. Exclusion of public vehicles from the river gravels during bird nesting seasons,

- g. Ensuring that the adverse effects of contaminants (i.e. faecal matter, nutrients) is minimised by achieving balance in sustainable stocking rates for areas of the Heretaunga Plains flood control scheme that are grazed. Undertaking of a study to assess sustainable stocking rates throughout the flood control scheme is recommended,
- h. Ensuring that hill country land utilises best management practices to minimise erosion, sediment supply, and nutrient losses.
- i. We support the regulation of output based nutrient leaching standards for primary industries within our awa's catchments. We also want to see the adoption of set values for leached nutrients from primary industries at levels that will enhance the mauri of our awa, its tributaries, and its groundwater to enable the proliferation of all freshwater species.

2.3 Tāne Mahuta

2.3.1 The aspirations of Ngā Hapū o Tūtaekurī for Tāne Mahuta

Ngā Hapū o Tūtaekurī has the following key goals for enhancing and reasserting mauri back into the awa and these are:

- a. Ensuring that Tāne Mahuta is able to support diverse ora and ecosystems within the greater Tūtaekurī awa catchment,
- b. Ensuring that the percentage of native forestry cover increases each year over the next 10 years (2015-2025),
- c. Enhanced riparian planting of site specific native plant species that will contribute to improved habitat creation for mahinga kai species, and improve water quality,
- d. The protection and restoration of kūkūwai (wetlands) located within our awa's catchment,
- e. To ensure that rare and threatened habitats located throughout our awa's catchment are identified and protected,
- f. To hear the bird song of the tūī, the kererū, the pīwakawaka, and the korimako around the awa,
- g. To have native manu populations increasing in the Tūtaekurī awa catchment across all species over the next 10 years (2015-2025).

2.3.2 Ngā Hapū o Tūtaekurī concerns for Tāne Mahuta

“My eyes search for the Tūtaekurī awa when standing at Waiohiki Kohanga but all I see are ugly non-native trees” (Ngāti Paarau kuia standing at Waiohiki).

Ngā Hapū o Tūtaekurī look upon our awa from up high and we see a forest scape that makes us feel that we are in North-West England, China or South Australia. Our gaze meets sparse patches of forest that has been planted with pine trees, willow, poplar trees, bamboo and non-native grasses. We know that this exotic forest cover provides shanty town equivalent accommodation for our manu and our ngāngara and so they stay away where they are replaced by exotic birds and insects.



Image 2: Exotic poplar trees and the absence of riparian planting, Tūtaekurī awa at Guppy Rd.

We also know that many species of our manu sit on the precipice of eternal extinction as their population numbers and genetic in-species diversity continues to fall as native vegetation and habitat is slowly diminishing. It makes us long for a landscape dominated by Ti Kouka, Karamu, Tawhai, Rimu, Tōtara, Matai, Kahikatea, Mānuka and Kānuka trees to again dominate the forest canopy as they did in the past, and beneath the forest canopy we desire to see the re-emergence of taekai and rongoā species such as Kawakawa, Harakeke, and Koromiko so that we can heal our whānau like we did in the past.

We are concerned of the future of our remaining wetlands that are connected to the awa and how they are protected against the ever growing hunger to convert land so that it becomes an economic

producing land parcel as opposed to a mauri producing one. We are concerned of the effect that further degradation of water quality in the Tūtaekurī awa will have on the estuarine wetlands at Waitangi which acts as the geographic funnelling point for all contaminants that come down the awa from up-catchment.

We ask ourselves- How can the Waitangi estuary provide for the kōtuku, the tūturiwhatu, and the pūkeke when it receives such pressure?

The answer is that it can't, unless the current trends towards the selection of non-native vegetation in place of native vegetation, and contamination of the awa from up catchment land use is reversed in favour of the re-establishment of Tāne Mahuta.

To summarise, our key concerns within the atua of Tāne Mahuta are as follows:

- There is a severe lack of native vegetation and tree cover present along the awa and its tributaries,
- There is a lack of native riparian planting, which can be effective in reducing sediment movement from erosion prone land. Areas such as dairy, beef and sheep farms have a higher risk of pollution, but are not required to implement riparian strips. Riparian margins can increase the habitat area for native species and acts as a natural filter for contaminants that may enter the awa and its tributaries,
- Areas once used for the collection of rongoā and natural resources along the awa are no longer plentiful and accessible to our whānau members,
- The absence of habitat for our native manu and our ngāngara, and the subsequent imminent threat of extinction that hangs over our native manu species including the tūturiwhatu, the pūteketeke and the kōtuku.

2.3.3 Where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realm of Tāne Mahuta

Identification and GIS mapping of river and stream margins where native riparian planting is currently established; areas where it is lacking; and high need areas where riparian planting initiatives should be directed,

- a. Identification and GIS mapping of existing native vegetative cover that details vegetative cover by species. This information will be used to build up a picture of what native vegetative cover is currently established within our catchment,
- b. Identification and GIS mapping of manu nesting areas and population counts within the Tūtaekurī awa catchment,
- c. Identification and GIS mapping of wetland habitats, rare and threatened habitats, and habitats considered to be outstanding.

The intention towards capturing this geospatial information is so that it can be used to build a base layer that efforts towards rehabilitation can be measured against.

2.3.4 What Ngā Hapū o Tūtaekurī want to see as future management options to achieve our aspirations for Tāne Mahuta

- a. Ngā Hapū o Tūtaekurī believes that a rehabilitation strategy for the re-establishment of native vegetation throughout the Tūtaekurī awa catchment is required. This strategy should be focused on the re-establishment of riparian margins along waterways, the re-establishment of the native forest canopy and taekai below it, and the protection and re-establishment of native nesting habitat for manu and ngāngara species.
- b. Replacement of exotic edge protection with native plantings within the boundaries of the Heretaunga Plains flood protection scheme where practicable.
- c. Undertaking of indigenous enrichment under-planting within the boundaries of the Heretaunga Plains flood protection scheme where exotic edge protection is provided.

- d. Development of a rehabilitation strategy targeted towards the protection and restoration of all wetland habitats; rare and threatened habitats; and habitats considered outstanding, located throughout our awa's catchments.

2.4 Tangaroa

2.4.1 The aspirations of Ngā Hapū o Tūtaekurī for Tangaroa

Ngā Hapū o Tūtaekurī has the following key goals for enhancing and reasserting mauri back into the awa and these are:

- a. Ensuring that Tangaroa is able to support diverse ora and ecosystems within the greater Tūtaekurī awa catchment,
- b. Ensuring that water quality and mauri in the awa is enhanced each year over the next 10 years (2015-2025),
- c. Ensuring the microbial quality of the awa is suitable for swimming in and gathering mahinga kai from by our whānau,
- d. Ensuring that issues caused by nitrification and periphyton growth within the awa are rectified,
- e. Ensuring that the diffuse discharge of soluble inorganic nitrogen and dissolved reactive phosphorus are controlled so that they're not problematic,
- f. Ensuring that the quantity of ground and surface water that flows through the Tūtaekurī awa catchment is able to sustain our whānau with a secure all year round supply of drinking water indefinitely,
- g. Ensuring that good environmental water management policies and practices are adopted and adhered to by government agencies and owners within the Tūtaekurī awa catchment.

2.4.2 Ngā Hapū o Tūtaekurī concerns for Tangaroa

We have key concerns for Tangaroa and the effect that poor water quality has on the mauri of the awa and its ability to sustain life, sustain eco-systems, and to provide safe water for swimming in and to collect mahinga kai from. We acknowledge that from our own experiences on the awa and from scientific reports (i.e. Ausseil, 2009) that there are key water quality problems that are diminishing the mauri of the Tūtaekurī awa. When our whānau go swimming in the awa we see dozens of cattle grazing the riparian margins of the river upstream of where we swim. We also see cow pats on the gravel river edges and we know that these contaminants will be washed into the river with the next rainfall event, creating contamination and causing a risk to human health due to the pathogenic bacteria that this faecal waste carries from our contact with the water we swim in, and to the mahinga kai we gather. In summer months we have to walk over a river bed that is covered in thick mats of algal slime and we see thick stagnant pools of algae growing in water that collects away from the main channel flows of the Tūtaekurī awa. We know from looking at these stagnant pools that they're dangerous to health and so we avoid that stretch of river to prevent any contact with potential cyanobacteria and their cyano-toxins.

A breakdown of key water quality issues of concern to tangata whenua are as follows:

2.4.2.1 *Excessive algal growth and nutrification of the awa*

“When we visit the Tūtaekurī awa to go eeling or swimming we feel the slime beneath our toes, and you feel that something isn't right with the awa and it's paru (unclean)”(Whānau member).

The Tūtaekurī awa has elevated nutrient (Soluble inorganic nitrogen (SIN) & Dissolved reactive phosphorus (DRP)) seepage from surrounding catchment land use that contributes to elevated periphyton growth or thick green/brown slime mats that coat stable surfaces and suffocate the awa. Under the right conditions enrichment of the awa with SIN and DRP via diffuse discharge from predominantly pastoral agriculture and horticultural land use activities can contribute to the proliferation of toxic benthic cyanobacteria mats (Phormidium) which pose a direct risk to human health, and animals. From an ecological perspective the proliferation of nuisance periphyton growth can lead to the loss of sensitive invertebrate taxa through habitat alteration, possible reduction in benthic biodiversity; can cause impairment of spawning and living habitat for native fish; and in terms

of water quality can contribute to increased suspended detritus, interstitial anoxia in the stream bed, increased biological oxygen demand, greater pH fluctuations, increased ammonia toxicity, and can cause very high pH values particularly in parts of the awa where the river is stagnant (Biggs, 2000). The report into the health of the awa by Ausseil, 2009 has highlighted that the Mangaone River at Rissington, and the Tūtaekurī awa at Brookfields Bridge occasionally exceed guideline water quality values for SIN and DRP. Ngā Hapū o Tūtaekurī endeavour to see these water quality trends and water quality exceedance for SIN & DRP reversed through a range of land management and rehabilitation initiatives in the future.

2.4.2.2 Faecal contamination from stock access to waterways and stream margins and as diffuse catchment runoff

The Tūtaekurī awa is prone to elevated levels of faecal bacteria at all sites measured as part of the State of the Environment Reporting where high faecal coliforms concentrations are regularly detected particularly at the Mangaone River (which has a predominantly pastoral catchment) monitoring site.

Faecal bacteriological monitoring for *E. coli* and faecal coliforms shows that at all times the water quality is not suitable for the wild harvesting of mahinga kai including kākahi and kowhitiwhiti.

Faecal contamination caused by livestock that have access to stream margins for grazing and are able to wade through the awa, pose acute health risks to our tamariki and whānau that swim in the awa downstream of these stock. No state of the environment or weekly sampling programme can protect our tamariki and whānau from these localised contamination events when stock defecate pathogenic bacteria likely giardia, cryptosporidium and campylobacter in the awa where we swim.

Stock being able to access stream and river margins for grazing also causes significant ecological harm to waterways where they trample and damage vegetation, and ecosystem habitats. Spawning areas for Īnanga, trout, and other fish species are vulnerable to stock causing destruction to their habitats, as are birds that nest within the awa gravels and on surrounding stream and river margins.

The HBRC Regional Resource Management Plan (RRMP) assists the regional council to manage the river with its surrounding land uses in an integrated manner. The RRMP contains Regional Rules that regulate stock access to waterways in the Hawke's Bay Region. Rule 50 (detailed below) outlines the ability for stock to access the awa.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
50 Disturbance of bed of river or lake by livestock Refer POL 47, 79	The disturbance of the bed of any permanently flowing river or any lake arising from the entry of livestock.	Permitted	a. The disturbance shall not cause any conspicuous change ¹²⁷ in the visual clarity of the water after reasonable mixing. b. Supplementary feed is not deposited on the bed of the river or lake. c. The disturbance shall not result in faecal coliforms exceeding 200 cfu/100 ml in any receiving water after reasonable mixing.		

Table 2: HBRC RRMP Rule 50

(Source: http://www.hbrc.govt.nz/HBRC-Documents/HBRC%20Document%20Library/RRMP_Ch6.pdf)

Ngā Hapū o Tūtaekurī believes that the Regional Plan and Rule 50 is inadequate to prevent against the harm that livestock do to ecological habitats for fish, birds, and invertebrates within the confines of stream and river margins. The Regional Plan also provides little tangible protection against the health risk created by microbial and protozoan pathogens in areas used for swimming and the gathering of mahinga kai by our whānau where stock have unrestricted access to the river for grazing and drinking. We believe Rule 50 is currently an unenforceable rule as it is too difficult and costly to prove that a breach of the RRMP has occurred. As a consequence the default result now occurs where stock freely trample over vital ecological habitats within stream and river margins, and defecate in the awa with little to no recourse. Several other regional councils throughout Aotearoa have identified that stock having free access to our rivers and streams is no longer a permitted activity. For example, Environment Canterbury (ECAN) in 2012 set rules prohibiting stock from entering natural waterways and also from entering other waterways where Īnanga and trout spawn. We are aware that HBRC are in the process of implementing a similar rule in a different part of the Hawkes Bay Region, through Plan Change 6. Ngā Hapū o Tūtaekurī also sees the adoption of aspects of Plan Change 6 as best suited for protecting the Tūtaekurī awa, to ensure ecological habitats are protected from stock trampling, and that water is of safe quality to be used by whānau for swimming and the gathering of mahinga kai. Rule 50 of the HBRC RRMP needs to be changed so that livestock are completely prohibited from accessing waterways so that the principle of mauri is enhanced and the aforementioned adverse environmental effects are prevented against.

However, we are also conscious that fencing of stock from waterways needs to occur in unison with native riparian planting of waterway margins, or else nuisance weeds will proliferate where stock can no longer graze.

2.4.2.3 Lack of stream and river edge shading and its effect on elevated water temperatures

Ngā Hapū o Tūtaekurī is concerned of the lack of shading from vegetative structure along stream and river margins in the Tūtaekurī awa and the Mangaone Stream. Ausseil 2009 has already identified that

temperatures above 19°C are likely to cause behavioural disturbances of trout such as cessation of feeding (Hay *et al.* 2007 as cited in Ausseil, 2009), and may exclude stoneflies (Quinn and Hickey, 1990 as cited in Ausseil, 2009). The summary of River data contained in Appendix A of Ausseil 2009 shows that water temperatures at the Mangaone/Rissington and the Tūtaekurī at Brookfields Bridge sites regularly exceed this 19°C threshold of effects in at least 10% of samples taken as part of the state of the environment reporting (Ausseil, 2009).

Ngā Hapū o Tūtaekurī believe that the restoration of stream habitat in regards to water temperature in the Tūtaekurī awa can be achieved through targeted and site specific riparian planting along stream and river margins within the Tūtaekurī River catchment, which will have the added benefits of:

- reducing sediment and nutrient inputs,
- creating low and uniform periphyton biomass,
- ensuring that periphyton is dominated by diatoms as opposed to phormidium,
- creating high retention of coarse particulate organic matter,
- creating high habitat diversity,
- enabling high utilisation by invertebrates of heterotrophic biofilms and detritus,
- having higher numbers of mayflies, stoneflies and shredders, coupled with lower numbers of snails, chironomids and oligochaetes (Rutherford et al, 1997).

2.4.2.4 Decreasing river and stream flows

Ngā Hapū o Tūtaekurī is concerned of the continuing taking of both surface and ground water for irrigating pastoral and horticultural land from within the Tūtaekurī awa catchment. The Tūtaekurī awa catchment experiences high irrigation demands. This leads to concerns regarding the cumulative impact of takes, and the sustainability of available water supply.

Adverse impacts on water quality and quantity as a consequence of abstractions must be avoided, to protect the mauri of the awa.

We worry that further growth and development of irrigable land within the catchment will increase the adverse effects caused by environmental stressors such as enhanced periphyton growth, reduced dilution of microbial contaminants, and reduced sediment transport & geomorphic flushing capacity in the awa that are all negative consequences of low flow conditions. These factors will place added stress on the awa's ability to provide for and sustain healthy and diverse eco-systems, which as a consequence will degrade mauri.

We are also concerned for the future of our Whānau who rely on ground and surface water takes for their drinking water supplies. The increasing demand for commercial water abstraction, coupled with the adverse effects of more frequent droughts brought on by climate change will severely impact on our people's ability to source a secure supply of drinking water.

A summary of our key concerns relating to water extraction from our awa are as follows:

- The information upon which to base decisions on new takes is not currently supplied to hapū,
- Cumulative effects of water takes on water volumes and secure drinking water supply for Whānau,
- Impact on water quality from decreased water quantity,
- Over allocation of water resources in the Tūtaekurī awa catchment,
- The adverse impact on mahinga kai from water abstractions,
- The disruption of ecological balance caused by less water flowing from rivers to the sea,
- The waste of water from irrigation, due to evaporation and dissipation,
- The adverse impacts on downstream areas from upstream water takes,
- The drainage, and loss of wetlands that were once associated with waterways in the Tūtaekurī awa catchment (water retention).

We believe an approach of environmental off-setting against the adverse effects that water takes have on Tangaroa and consequently mauri, can be achieved by enriching the awa with native planting and fencing designed to enhance the mauri of the awa. This can occur through the financial levying of consented water takes that can be put towards native planting along the riparian margins of the awa. We therefore believe that the Hawkes Bay Regional Council's Ecological Management plan for the Tūtaekurī awa include provisions for "financial contributions" to be made towards riparian planting to offset the adverse effects on Tangaroa posed by water takes in accordance with Sections 108 (9) (a) & 108 (10) (a) & (b) of the Resource Management Act 1991.

We would also require HBRC to ensure all water takes are used efficiently and that land owners have access to, and provided with educational material that encourages good practice. We also recommend that HBRC investigate the use of inefficient water application systems from users of large water takes, and create a strategy to implement proficient systems.

2.4.3 Where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realm of Tangaroa

Ngā Hapū o Tūtaekurī believes that more research and knowledge to inform our baseline understanding of what factors are specifically impacting on the mauri of the awa; the mechanisms by which these factors impact on the water quality of the awa; and thirdly to inform ourselves as tangata whenua of the awa as to where efforts of restoration are to be best directed to enable the best rehabilitation results. Key research/knowledge that Ngā Hapū o Tūtaekurī see as needing to be completed to meet these gaps includes:

- a. Identification and GIS mapping of land uses that contribute to elevated levels of SIN and DRP into the awa including into the sources of nutrient discharge in the Mangaone River as recommended by Ausseil, 2009,
- b. Identification and GIS mapping of stock grazing areas along stream and river margins and on adjacent land uses,
- c. Identification and GIS mapping of areas where stock fencing along waterways is currently established, coupled with further mapping of areas where stock fencing along waterways is lacking and is needed,
- d. Identification and GIS mapping of river and stream margins where native riparian planting is currently established; areas where it is lacking; and high need areas where riparian planting initiatives should be directed,
- e. Further monitoring of water quality upstream of the Mangaone River confluence as recommended by Ausseil, 2009,
- f. Faecal source tracking of micro-bacterial contaminants in the awa in order to inform where they are sourced from, and to secondly identify what are the predominant faecal pollution sources in the river,
- g. Identification and analysis of fine sediments deposited in the lower reaches of the Tūtaekurī awa, in order to determine what land uses are contributing to sediment discharge. (Note: This information will be used to inform where erosion prevention/control and riparian planting is to be best targeted),

- h. An assessment of the vulnerability of Whānau that are reliant on the secure supply of ground and surface water for drinking water purposes, to the future impacts of climate change and increased water abstraction by primary industries,
- i. To include in the Hawkes Bay Regional Council's Ecological Management plan for the Tūtaekurī awa provisions for "financial contributions" to be made towards riparian planting to offset the adverse effects on Tangaroa posed by consented water takes in accordance with Sections 108 (9) (a) & 108 (10) (a) & (b) of the Resource Management Act 1991.

2.4.4 What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Tangaroa

- a. Ngā Hapū o Tūtaekurī aim is to have native riparian planting along all stream and river margins in the Tūtaekurī awa catchment.
- b. Ngā Hapū o Tūtaekurī want to see the HBRC make changes to their Regional Rules so that stock are prohibited from accessing streams and river margins within the Tūtaekurī River catchment.
- c. Ngā Hapū o Tūtaekurī want to see stock fencing occur in unison with riparian planting to prevent against nuisance weed growth.
- d. Ngā Hapū o Tūtaekurī want to see HBRC to ensure all water takes are used efficiently and that land owners have access to, and are provided with educational material that encourages best practice.
- e. Ngā Hapū o Tūtaekurī want to see a strategy developed that identifies inefficient users of consented water takes and require those users to submit a management plan that details their techniques to minimise unproductive water use.
- f. Ngā Hapū o Tūtaekurī wants to ensure that when discretionary water takes are being assessed, that the continued supply of water for drinking water purposes is evaluated and prioritised, with particular reference to those Whānau who source groundwater from shallow bores.

- g. Ngā Hapū o Tūtaekurī wants to see the development of a strategy for the enhancement of aquatic eco-systems within the Heretaunga Plains flood control scheme, particularly in regards to reference to enhanced shading, establishment of in stream habitat, & the protection and establishment of fish spawning habitat,
- h. In consultation with Ngā Hapū o Tūtaekurī we want to ensure water quality limits are set for: within-streams; the awa body; and in its groundwater, at limits targeted towards restoring the mauri, and therefore ecological health for all life, of our wai.

2.5 Tāwhirimātea

2.5.1 The aspirations of Ngā Hapū o Tūtaekurī for Tāwhirimātea:

- a. Ensuring that Tāwhirimātea is able to support diverse ora and ecosystems within the greater Tūtaekurī awa catchment,
- b. Ensuring that airborne contaminants do not create adverse impacts on waterways, mahinga kai and its indigenous biodiversity,
- c. Ensuring that the wind dispersal of contaminants in discharge to air activities, (i.e. primarily spray drift on horticultural/agricultural land), does not affect riparian vegetative margins and areas where mahinga kai is collected,
- d. Ensuring that the use of neonicotinoid containing insecticides within the Tūtaekurī Awa catchment is discouraged,
- e. Ensuring that agrichemicals and fertilisers applied aerially to land do not enter the awa, and do not make contact with riparian vegetative margins.
- f. Ensuring that best environmental air quality management policies and practices are adopted and adhered to by government agencies and landowners within the Tūtaekurī awa catchment.

2.5.2 Ngā Hapū o Tūtaekurī concerns for Tāwhirimātea

Ngā Hapū o Tūtaekurī hold concerns for Tāwhirimātea and his ability to sustain life and eco-systems through the provision of clean and respirable air that is free of airborne contaminants. The Tūtaekurī rohe and its air shed are regularly exposed to a wide range of airborne pollutants that impact on both human health and the ora of eco-systems.

These include:

- Fine particulate matter from the burning of wood,
- Vehicle emissions (i.e. sulphur dioxides, carbon monoxide/dioxide, and PM2.5-10),
- Industrial discharges (i.e. Ravensdown fertiliser plant),
- Dust discharges from horticultural land and gravel roads,
- Spraying of agrichemicals on horticultural and pastoral farm land, as well as by home owners/hobby gardeners.

Ngā Hapū o Tūtaekurī is particularly concerned of the adverse environmental and ecological effects that the use of agrichemicals imparts on land uses that are in close proximity/bordering the Tūtaekurī awa. We are concerned of the negative ecological impact from their application on the life sustaining capacity of the water and on the riparian vegetative strips that connects life to the awa. A breakdown of key air quality issues of concern to tangata whenua regarding the application of agrichemicals in the Tūtaekurī catchment are as follows:

2.5.2.1 The wind dispersal of contaminants in discharge to air activities, primarily (spray drift) on agricultural land, particularly in areas where mahinga kai is collected.

Bordering the Tūtaekurī awa are numerous growing operations that utilise the application of agrichemicals to land and crops through targeted spray programmes. These include horticultural industries and pastoral farms that all routinely utilise agrichemicals for the control of insects, fungi/moulds, weeds, and for other control purposes.

Ngā Hapū o Tūtaekurī is concerned of both the intentional and unintentional release of agrichemicals to land and crops where there is the potential for spray drift beyond the target area/crop to occur leading to an adverse ecological effect on ecosystems and habitats existing within the Tūtaekurī awa and bordering it.

Depending on the scale and location of discharge, Ngā Hapū o Tūtaekurī believe a buffer distance of at least 50m, from the area determined to be riparian, must be observed when discharging chemicals to

horticultural land near waterways and this distance may need to be increased if there are insufficient natural riparian buffer zones. We believe this buffer zone is necessary if we're to best protect the riparian habitats that border the awa and its tributaries that sustain both terrestrial and aquatic ecosystems.

We are aware that certain agrichemicals are designed to be used in and around the awa and water ways. We are not opposed to the use of chemicals within and close to waterways that are suitable for their intended use, however our key concerns relate to chemicals affecting riparian margins and waterways when they are not the intended target and harm to mauri subsequently occurs.

2.5.2.2 The potential use of neonicotinoid containing insecticides within the Tūtaekurī awa catchment.

Ngā Hapū o Tūtaekurī is concerned about the potential adverse ecological effects on ecosystems from the use and application of neonicotinoid containing insecticides within the Tūtaekurī awa catchment. The potential for neonicotinoid containing insecticides to pose threats to honey bee populations and its connection to honey bee collapse disorder has been documented internationally. The exposure to neonicotinoids has also been proven lethal in birds and aquatic invertebrates, which are both non-target species of spray programmes (Mineau and palmer, 2013).

Consequently, usage of the neonicotinoids (imidacloprid, clothianidin, and thiamethoxam) on crops deemed attractive to bees was banned by the European Food Safety Authority in 2013.

The use of neonicotinoid containing chemicals in the horticultural industries that border the Tūtaekurī awa is an issue worth considering and we believe where possible substitutes for non-neonicotinoid derived insecticides should be promoted in our region.

2.5.2.3 The aerial application of agrichemicals and fertilisers to land that may enter the awa.

Ngā Hapū o Tūtaekurī is concerned of both the intentional and unintentional release of agrichemicals and fertilisers to land via aerial application. The potential exists for these contaminants to enter the main stem of the Tūtaekurī awa and also the streams and tributaries that feed, nourish and replenish it. This can occur via the direct application of these contaminants to water or from the close application to riparian zones where they can readily enter waterways as diffuse runoff sourced contaminants.

Ngā Hapū o Tūtaekurī as part of their future goals and aspirations for breathing ora back into the awa’s mauri intends on undertaking hapū led riparian planting initiatives along waterways throughout the Tūtaekurī awa catchment. However, we are concerned that future efforts in restoring riparian planting of native vegetation could be affected by the aerial application of agrichemicals close to margins we intend to plant.

The HBRC RRMP specifies in Rule 10 (g) (i) that the aerial application of agrichemicals should not occur “within 20m of any continually flowing river which has a bed width of 3m or more” (See Table 3).

Rule	Activity	Classification	Conditions/Standards/Terms
<p>10</p> <p>Widespread application of agrichemicals</p> <p>Refer POL 8, 10, 17, 47</p>	<p>The discharge of contaminants into air or onto land, or into water, arising from the use or disposal of any agrichemical³⁸, except as provided for by Rule 9.</p>	<p>Permitted³⁸</p>	<p>g. For aerial discharges, all reasonable measures shall be taken to prevent any discharge of agrichemicals within 20 m of:</p> <ul style="list-style-type: none"> i. any continually flowing river which has a bed width of 3 m or more, and ii. any lake or wetland⁴⁰.

Table 3: HBRC RRMP Rule 10 (g)

We believe that a buffer zone for the aerial application of agrichemicals and fertilisers be extended to 50m from riparian vegetative margins so that any risk due to pilot error from the application of these chemicals does not impact on our waterways and their ecologically significant riparian margins. A greater buffer zone will also reduce the diffuse discharge of fertilisers into the Tūtaekurī awa which will lessen the impact of nuisance phormidium growth in the awa.

2.5.3 Where Ngā Hapū o Tūtaekurī see more research and knowledge is needed to better understand mauri as it relates to the realms of Tāwhirimātea

- a. Ngā Hapū o Tūtaekurī wants to see benthic sediments located within the awa at sites adjacent to where heavy agrichemical use currently occurs, and historically occurred, be investigated in order to determine persistent levels of agrichemicals (i.e. heavy metals, organophosphates, dichlorodiphenyltrichloroethane (DDT) & other organochlorines) in the catchment. This data could also be used to develop baseline values for contaminants within sediments in the awa.

2.5.4 What Ngā Hapū o Tūtaekurī wants to see as future management options to achieve our aspirations for Tāwhirimātea

- a. Production of a strategy to enhance native wildlife habitat and wildlife corridor values by facilitating the dispersal of native animal and plant species from the Kaweka Ranges, along the length of the Tūtaekurī awa, & out across the Heretaunga Plains;
- b. Implementation of a monitoring programme to gauge the effectiveness of the strategy in point 2.5.4.a. above being implemented (i.e. Bird counts, trapping counts for mammalian predators, monitoring for plant survival) within the soon to be adopted HBRC Ecological Management Plan for the Tūtaekurī awa ;
- c. Ngā Hapū o Tūtaekurī want to see that all environmental plans and policy decisions made by the Regional Council are structured so that they have been shown to account for the improvement of mauri as it applies to the atua of Tāwhirimātea.

Part 3: The future

3.1 Realisation of Kaitiakitanga: Enhancement of mana whenua connection to and authority over the Tūtaekurī awa.

Historically, a formal relationship between Regional Government and tangata whenua of Tūtaekurī awa has not existed, therefore, the tino rangatiratanga for tangata whenua has not yet been realised. This is not only a bypass of disregard for hapū cultural values for our awa, but also an oversight pertaining to current statutory and treaty obligations. However, we understand that a future forward is one that needs to be laid down with positive, productive and meaningful partnerships. We request the following points to be addressed in future partnership agreements (in no particular order):

- a. Inclusion, influence and dialogue regarding activities on the awa; including all concerns and recommendations made in this plan,
- b. The use of natural resources (i.e. fire wood, gravel, rongoā), and access by our whānau to the Tūtaekurī awa, through currently restricted gates,
- c. Formation of a working group comprising of key management and staff from the Hawke's Bay Regional Council with Ngā Hapū o Tūtaekurī members to discuss the operational requirements of our combined work towards the rehabilitation of the Tūtaekurī awa's mauri,
- d. Joint quarterly review meetings between Hawke's Bay Regional Council and Ngā Hapū o Tūtaekurī members,
- e. Joint development and delivery of restoration and education programmes to; Hawke's Bay Regional Council employees, tangata whenua, schools, local residents and all community members,
- f. Joint ventures for safe and healthy swimming and development of recreational areas close to marae,
- g. Promotion of environmental offsetting amongst industry where adverse environmental effects are created to the Tūtaekurī awa,
- h. Financial levying of extracted resources (i.e. water for irrigation, gravel) in order to fund Ngā Hapū o Tūtaekurī restoration initiatives.

Ngā Hapū o Tūtaekurī further aim to realise our role of kaitiakitanga in regards to the management of the Tūtaekurī awa. We want to ensure that our aspirations for the Tūtaekurī awa are realised and that all decision making regarding the development of policy that affects the Tūtaekurī awa requires the HBRC to consult with Ngā Hapū o Tūtaekurī .

Please ensure all requests for consultation is forwarded to Ngā Hapū o Tūtaekurī via the following contact details:

Hinewai Hawaikirangi

or

Te Kaha Hawaikirangi

453 Kennedy Rd

36 Trinity Crescent

Pirimai

Pirimai

Napier

Napier

Email: hhawaikirangi@gmail.com

Email: tkhawai@gmail.com

Mobile: 021 077 0088

Mobile: 021 063 2840

3.2 Working in partnership

We as tangata whenua of Tūtaekurī awa, regard this taonga an important part of our history and future. This document has described our hopes and needs for the enhancement of mauri for Tūtaekurī awa. As stated earlier, there are many action plans to follow in order to realise our aspirations as Ngā Hapū o Tūtaekurī. Also, this document will be reviewed and re-evaluated as matters arise to make major changes.

Ngā Hapū o Tūtaekurī requests a formalised partnership with Hawke’s Bay Regional Council in order for the mauri of Tūtaekurī to be restored and enhanced. We have similar views within the Tūtaekurī Ecological Management and Enhancement Plan (Forbes, 2013), which run parallel to the aspirations, concerns and recommendations of Ngā Hapū o Tūtaekurī. Ngā Hapū o Tūtaekurī recognises the need for balance between the restoration and enhancement of mauri for the Tūtaekurī awa, while maintaining flood prone areas is necessary.

Ngā Hapū o Tūtaekurī wishes to work in partnership with the Hawke’s Bay Regional Council in supporting Ngā Hapū o Tūtaekurī in achieving the goals outlined above and also the goals in Ngā Hapū o Tūtaekurī Awa Management Operation Plans to follow.

Ngā Hapū o Tūtaekurī is planning co-partnerships with the following groups; Ngāti Kahungunu Incorporated, Mana Ahuriri Incorporated, Department of Conservation, Ministry for Primary Industries, Ngā Whenua Rāhui, Fish and Game, Forest and Bird, the Ministry of Education, the Hastings District Council and the Napier City Council.

3.3 Whakataukī whakamutunga

Nā tō rourou, nā taku rourou ka ora ai te iwi

With your food basket and my food basket the people will thrive.



Glossary

Atua: spiritual guardian, god

Awa: river

Hapū: Sub-tribe

Harakeke: New Zealand flax (*Phormium tenax*)

Īnanga: Common galaxias (fish)

Iwi: tribe

Kahikatea: white pine tree (*Dacrycarpus dacrydioides*)

Kaitiaki: a guardian

Kaitiakitanga: guardianship

Kākahi: fresh water mussels

Kānuka: white tea-tree (*Kunzea ericoides*)

Karakia: incantation

Kawakawa: pepper tree (*Macropiper excelsum*)

Kōhanga: Early childhood education centre, or nest

Kōrero paki: story

Korimako: bellbird

Koromiko: Native shrub (*Hebe elliptica*)

Kōtuku: white heron

Kowhitiwhiti: watercress

Kuia: female elder

Mahinga Kai: indigenous freshwater species that have traditionally been used as food, tools, or other resources.

Mana atua: sacred spiritual power of an *atua*

Mana whenua: the exercise of traditional authority over an area. It is the area over which particular Iwi and hapū claim historical and contemporary interests.

Manu: bird(s)

Mānuka: tea-tree (*Leptospermum scoparium*)

Mauri: life force / life principle

Mataī: black pine tree (*Prumnopitys taxifolia*)

Ngāngara Insect family, “The insect world”

Ora: life

Orokohanga: creation story

Papatūānuku: Earth mother
Pīwakawaka: fantail bird
Pūkeko: purple swamp hen
Pūteketeke: New Zealand grebe bird
Rangatira: chief / leader
Ranginui: Sky father
Rimu: red pine tree (*Dacrydium cupressinum*)
Rohe: area / region
Rongoā: traditional Māori remedies
Taekai: shrubs
Tāne Mahuta: spiritual guardian of the forest and all living things dwelling within
Tangaroa: spiritual guardian of the ocean, lakes, rivers, streams and all living things dwelling within
Tangata whenua: Iwi or hapū that holds mana whenua over that land
Taonga: treasure
Taonga tuku iho: a treasure passed down from our ancestors
Tawhai: silver beech tree (*Nothofagus menziesii*)
Tawhairaunui: hard beech tree (*Nothofagus truncate*)
Tawhairauriki: black beech tree (*Nothofagus solandri*)
Tāwhirimātea: spiritual guardian of the wind
Te Ao Mārama: the world of life and light
Tino Rangatiratanga: sovereignty / self - determination
Tīpuna: ancestor(s)
Tōtara: Large forest tree (*Podocarpus totara*)
Tūtaekurī: dog excrement
Tūturiwhatu: dotterel bird
Whakamutunga: finishing
Whakapapa: genealogy
Whakatauaāki: proverb
Whānau: family
Whenua: land, ground

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2004, Auckland, New Zealand



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Date Received:
29/6/2015
1. Liz Lambert
2. Gavin Ide
3. Esther-Amy Bate

Iwi/Hapu Management Plan

Lodgement Form

1. This application is for:

- A new iwi/hapu management plan.
 Updating or reviewing an existing document (Please name existing document below).

2. Name and contact details of iwi/hapu.

Ngāpti Kahungunu Iwi
Tā. Kura House
304 Fitzroy Ave
Hastings

Email: jonathan@kahungunu.iwi.nz
Phone: 8762718
Mobile: 0279764451
Fax: 8764807

3. Name of the iwi/hapu management plan:

Tūtōkuri Awa Management & Enhancement Plan

4. Verification that the management plan is recognised by the Iwi Authority:

Details of Authorised Iwi Authority representative:

Name: Adèle Whyte Designation: CEO
Signature: _____ Date: _____

5. Have you:

- Enclosed an electronic copy of the iwi/hapu management plan?
 Enclosed verification that the iwi/hapu management plan is recognised by the Iwi Authority or completed section 4 above?

6. Authorised signature/s for lodgement:

Name: Dr Adèle Whyte
Role: CEO - Ngāpti Kahungunu Iwi Inc
Signature: [Signature] Date: 7/10/14
Name: _____
Role: _____
Signature: _____ Date: _____

7. Please direct to: Policy Team, Hawke's Bay Regional Council, Private Bag 6006, Napier 4110